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# Credit Presentation

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*December 2019*

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# Leading integrated energy utility with a global footprint, present in 16 countries and leading position in renewable energy



**2018 FY**

**~65%**

**Renewables**



Wind



Solar



Hydro

**~25%**

**Networks**



Distribution



Transmission

**~10%**

**Client Solutions & Energy Management**



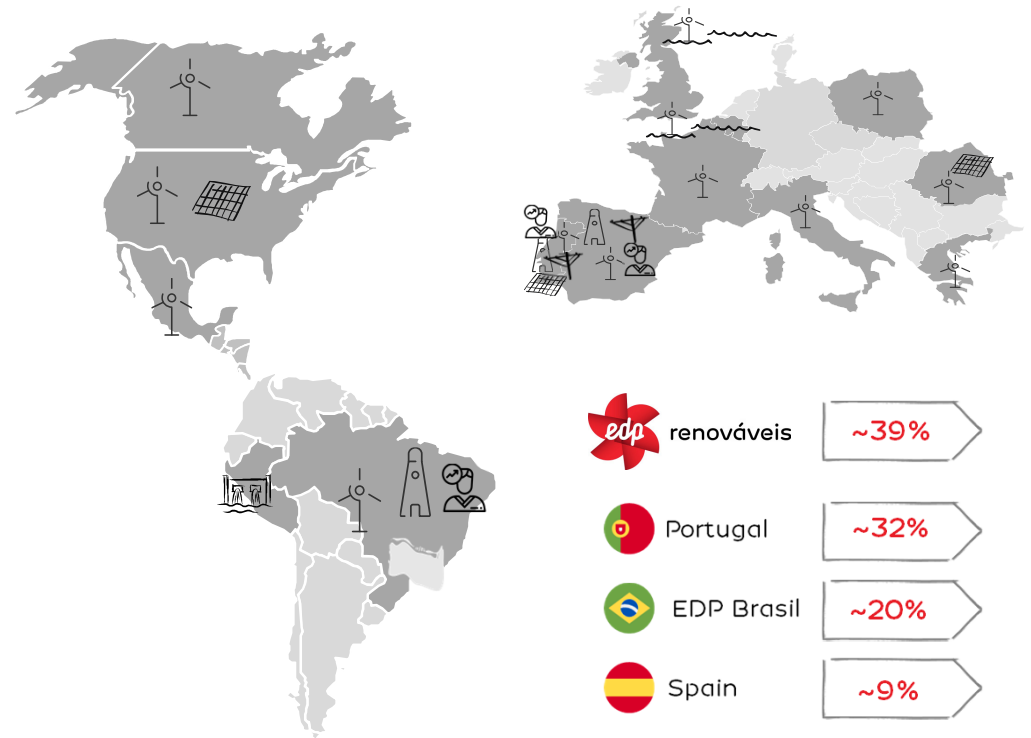
Clients



Trading



Thermal



**Key figures<sup>(1)</sup>:** Installed Capacity | 28.1 GW    EBITDA | €3.3bn    Net Profit | €0.5bn    Employees | 11.6k    Customers<sup>(2)</sup> | 9.8m

<sup>1</sup> All figures reported as of YE2018 | <sup>2</sup> Number of electricity customers as of YE2018

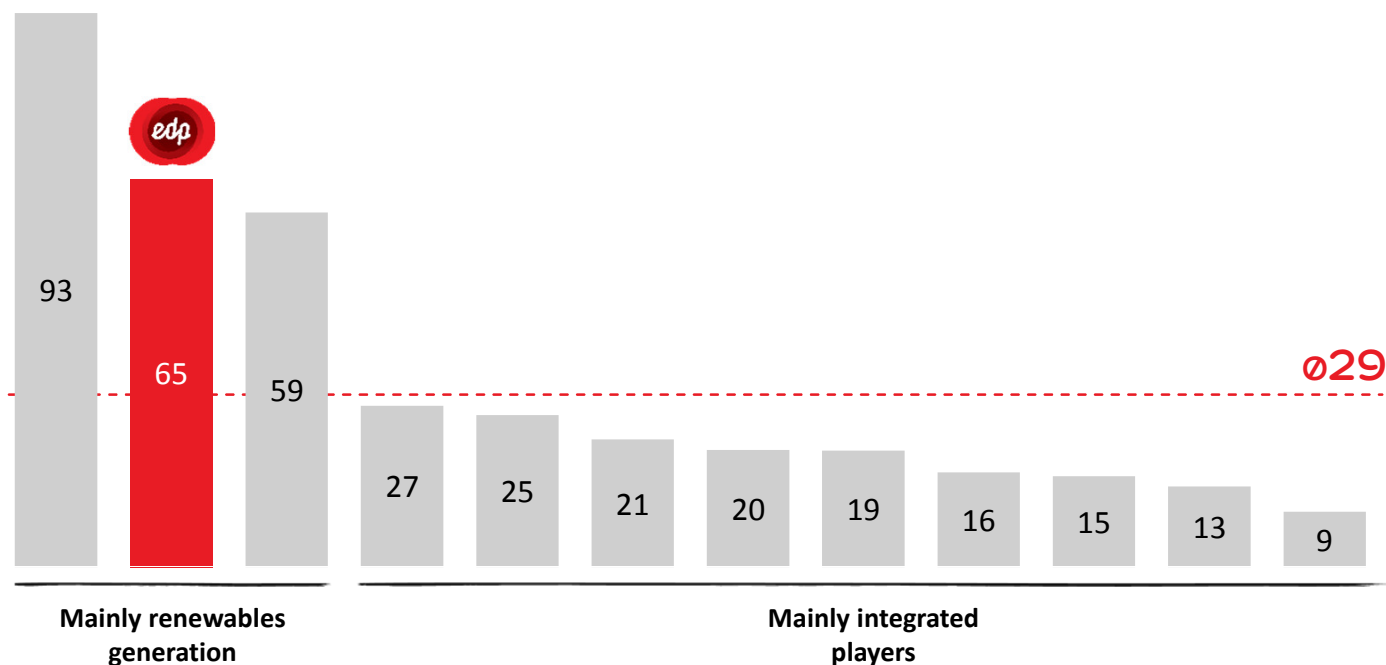
% Weight EBITDA as of YE2018

# We are already a leading green energy utility



## Distinctive positioning among European utilities...

European utilities' share of Renewables in total EBITDA<sup>1</sup>, %



## ...supported by strong intrinsics

**~2.5x more renewables**

than integrated peers and **~35pp**  
**higher renewables EBITDA** share than  
average of peers

**>25 years of residual life<sup>2</sup>**

**high-quality and young portfolio**

- Wind and solar: **22 years**
- Hydro: **33 years**

<sup>1</sup> Values as of 2017 except for EDP (2018), average excludes EDP | <sup>2</sup> Average considering asset life for wind of 30 years, solar 35 years and for hydro concession terms

# We are in a privileged position to capitalize on the energy transition given our early-mover advantage



## We are a global leading renewables player...



**~21 GW**

of renewables capacity<sup>1</sup> deployed worldwide



- **Top-5** global wind player with **~12 GW**
- **>9 GW in hydro**, of which **4.3 GW with reservoirs**, and **~3 GW pumped hydro**



**>€20 Bn**

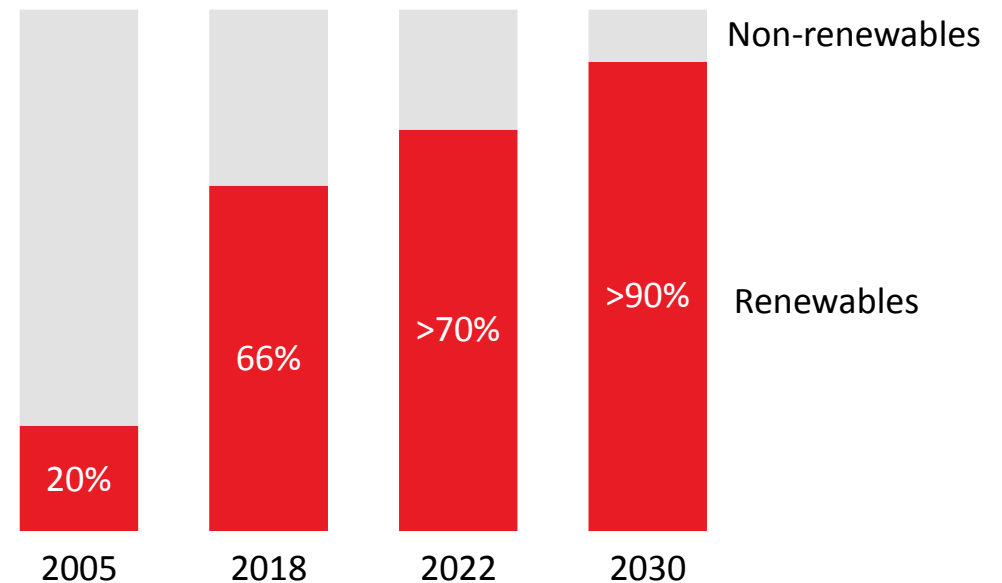
deployed in renewables since 2006



- **75% in wind onshore**
- **40% in the US**

## ... prepared for the future

Source of generated electricity, TWh





# OUR 2030 VISION

Leading the energy transition to create superior value



**Decarbonization**



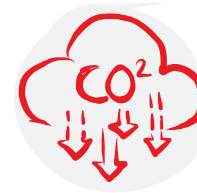
**Digitalization**



**Decentralization**



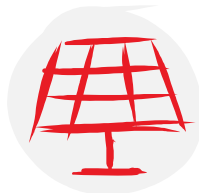
**>90% renewables  
generation**



**Reduce 90% specific  
emissions** (vs 2005 levels)



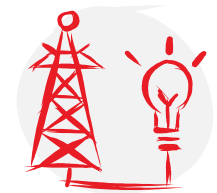
**Become  
coal-free**



**>4 Mn decentralized  
solar PV panels installed**



**>1 Mn clients with  
e-mobility solutions**



**100% smart grids**  
(in Iberia)

# Our growth plans are fully aligned with sustainable strategy in place. Sustainability is part of EDP's DNA



## Our approach

More than a simple goal, continuing to grow while meeting the challenges of sustainable development is a pledge we made to our stakeholders. **Sustainability is part of EDP's DNA**



### Environment

We want to continue to be leaders in environmental business management, implementing the best practices and investing in renewable energy



### Society

We are committed to creating social value and contributing to citizenship and the quality of life of populations



### Economy

We aim to bring value to our clients, suppliers and other stakeholders

## EDP principles of sustainable development



**Economic  
& social value**



**Eco-efficiency &  
environmental  
protection**



**Innovation**



**Integrity & good  
governance**



**Transparency  
& dialogue**



**Human capital  
& diversity**



**Energy access**



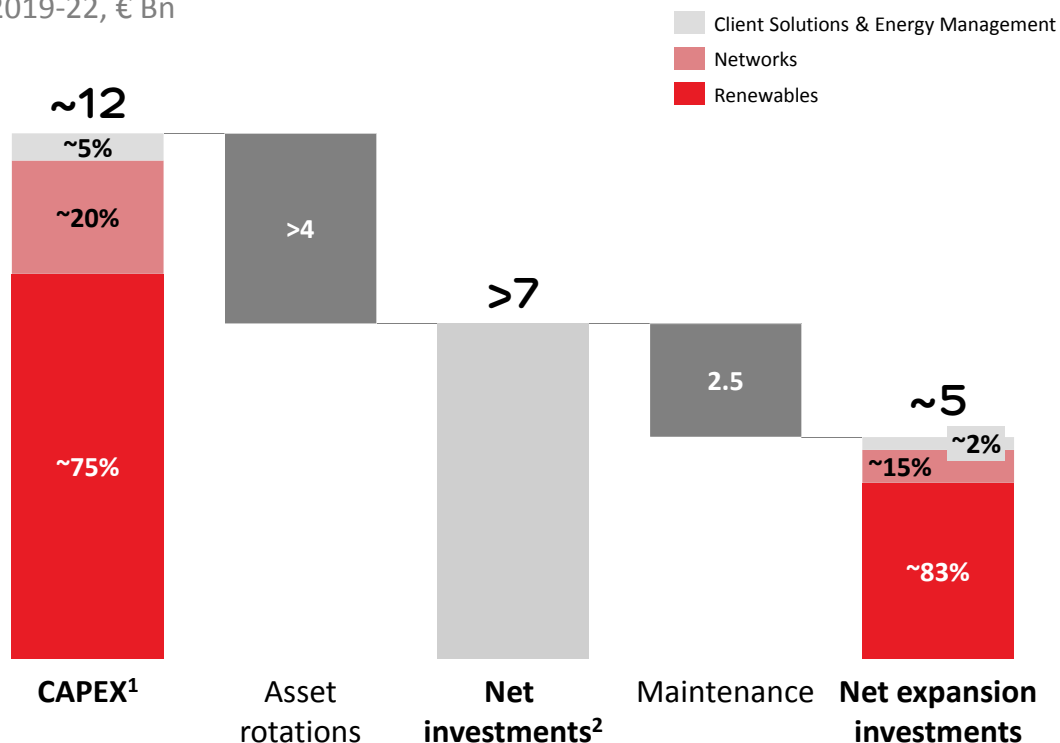
**Social  
development &  
citizenship**

# We are targeting a greener and lower-risk portfolio coupled with upfront value crystallization



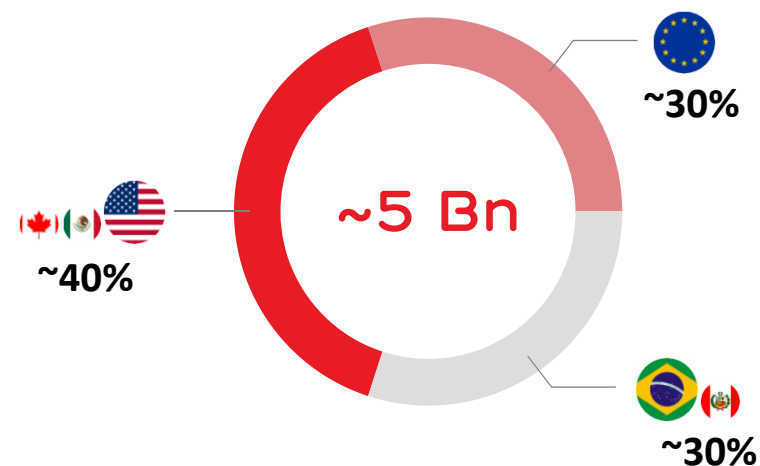
## Investment with strong focus on renewables...

2019-22, € Bn



## ... growing mostly in North America and Europe

Expansion net investment by geography



<sup>1</sup> Includes financial investments | <sup>2</sup> Excludes disposals

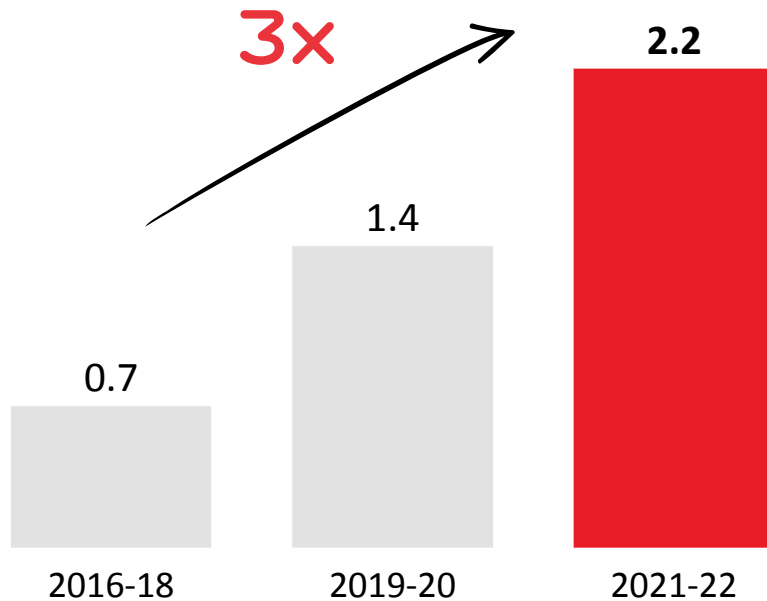
INVESTOR PRESENTATION

# We will triple our growth in renewables, mostly focused on wind onshore and solar...







## Step up growth in renewables

Gross GW/year



## Additions 2019-22

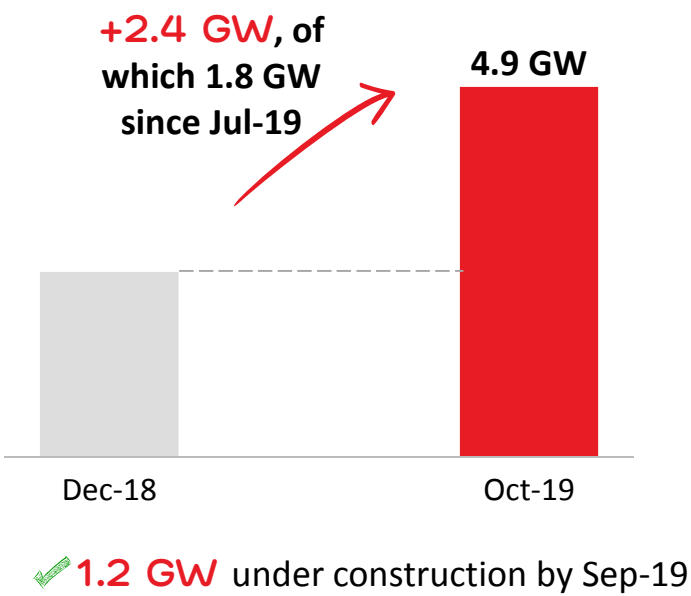
	GW <sup>1</sup>	Share	
 Wind onshore	5.0-5.5	~70%	<ul style="list-style-type: none"> <li>Wind onshore additions will be focused in the US for 2019/20 and also in Brazil for 2021/22</li> </ul>
 Solar PV	1.5-2.0	~25%	<ul style="list-style-type: none"> <li>Solar PV additions focused in the 2021/22 period</li> </ul>
 Wind offshore	0.2-0.3 (2 GWs gross with COD until 2025)	~3%	<ul style="list-style-type: none"> <li>Mostly related to Moray East project in the UK</li> </ul>
 Hydro	0.1-0.2	~2%	<ul style="list-style-type: none"> <li>Hydro plant in construction in Peru</li> </ul>

<sup>1</sup> EBITDA + Equity GWs

# We have already secured 70% of our 7 GW renewables target additions for 2019-22

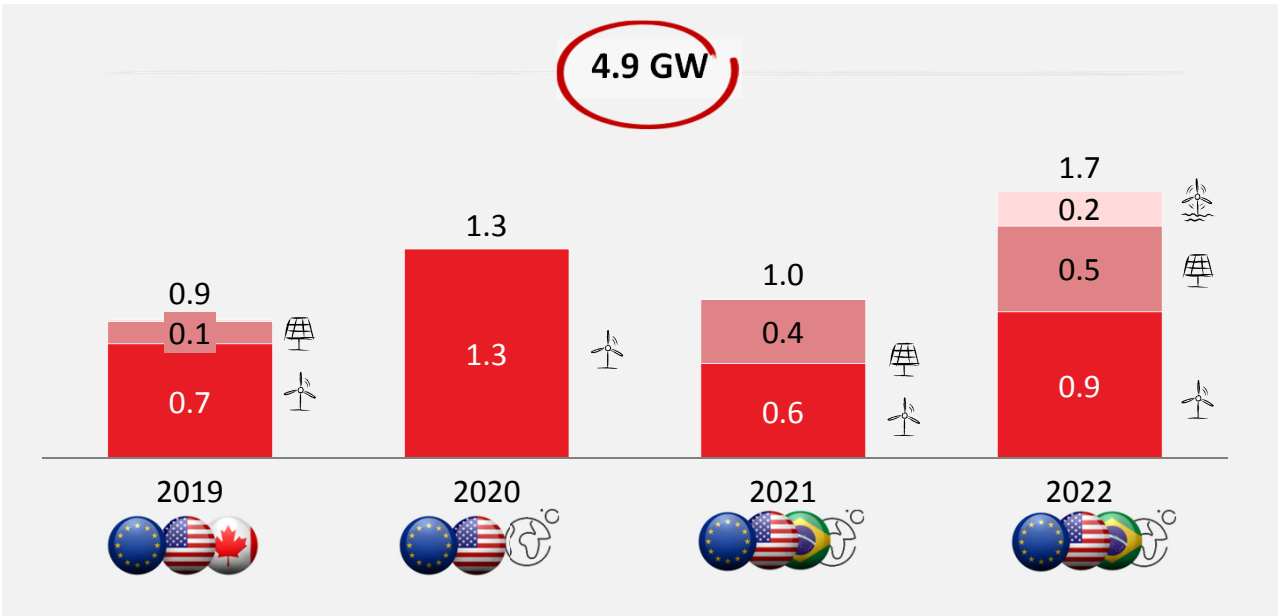


## Renewables Capacity LT contracts secured for 19-22



## Projects already secured

Build-out GW; Oct-19

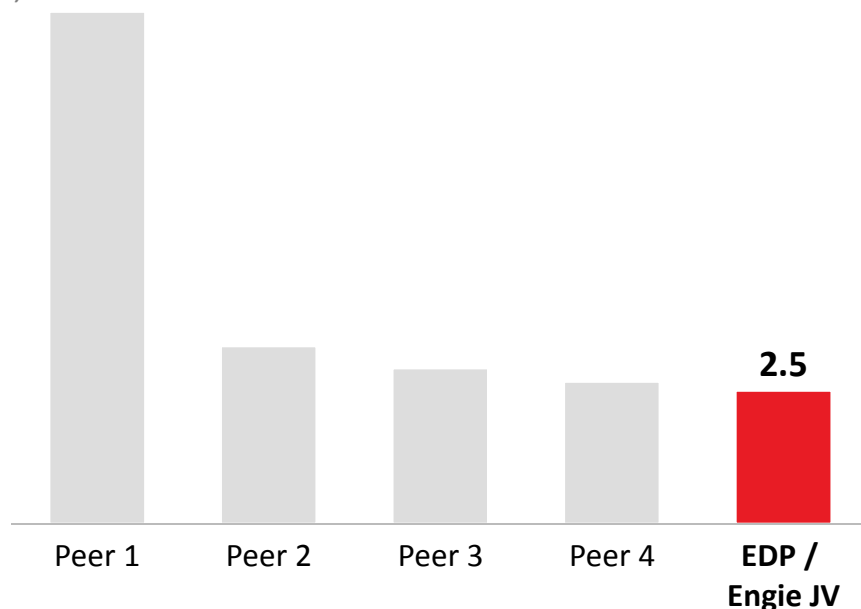


**4.9 GW already secured, of which 2.4 GW since Jan-19**








We are establishing a 50:50 JV with Engie for global offshore wind, creating a Top 5 global player



**Top players Global Offshore Wind<sup>1</sup>**  
(by capacity secured with PPA/FiT for 2025E)  
GW, as of Jun-19



**EDP/Engie JV for offshore wind: Projects with PPA/FiT secured**

Project 	CoD	MW	JV Stake (%)
 Floating offshore	2019E	25	80.0
 Seamade	2020E	487	17.5
 Moray East	2022E	950	56.6
 Floating offshore	2022E	24	80.0
 Tréport & Nourmoutier	23E/24E	992	60.5
 Mayflower	2025E	804	50.0
<b>Under Construction/Secured<sup>2</sup></b>		<b>~3.3 GW</b>	
Under development (UK, US, Poland)		~2.2 GW	
<b>Total Projects<sup>(2)</sup></b>		<b>~5.5 GW</b>	

**Wind offshore:** EDP/Engie JV progressing on formal establishment as expected  
Mayflower was awarded in Massachusetts. Results of Connecticut PPA auction known soon

<sup>1</sup> Peers numbers based on equity research | <sup>2</sup> Considering 100% of projects capacity  
INVESTOR PRESENTATION

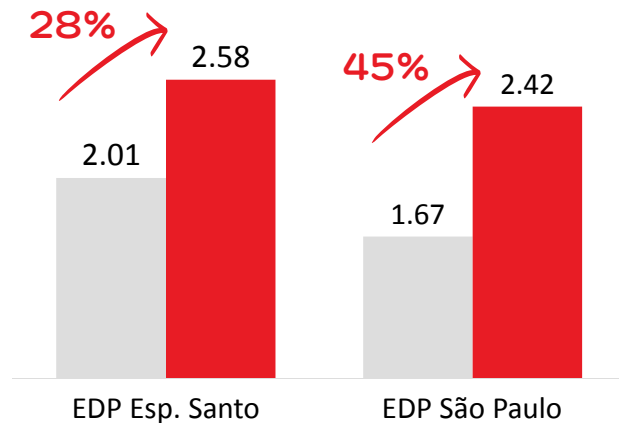
# Growth visibility in Networks Brazil: new regulatory period in distribution and deployment on track of new transmission projects



## Distribution: Regulatory review

Regulated Asset Base  
R\$ Bn

Previous Reg. Period  
New Regulatory Period



- ✓ **RoRAB @ 8.09% post-tax** (up to Aug-22 for EDP ES and Oct-23 for EDP SP)
- ✓ **Regulated revenues “Parcela B”**: **+20%** vs. First 12 months of the previous regulatory period

## Transmission lines rollout moving forward

6 projects: **1,441km**

**R\$3.9 Bn<sup>1</sup>** of total investment

- **1 line in operation** (20 months ahead of schedule)
- **4 lines under construction**
- **1 line in permitting stage**

- ✓ **37%** of CAPEX executed up to Sep-19
- ✓ **71%** of funding already secured at better than expected financing costs
- ✓ **12-14%** implicit ROE in auction bids, with 2x NPV enhancement, driven by construction ahead of schedule and funding optimization

<sup>1</sup> Inflation adjusted CAPEX  
INVESTOR PRESENTATION

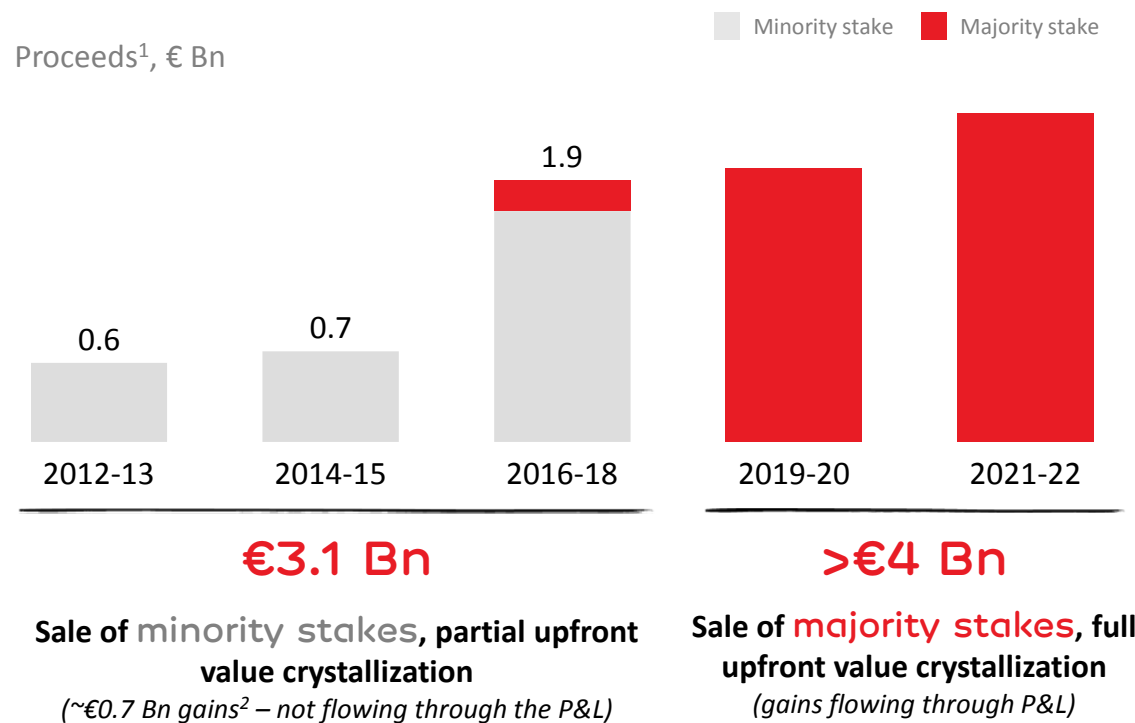
# We will use our proven asset rotation model to create value and accelerate renewables growth



## Asset rotation – Proven model with continuous delivery...

## ...and clear execution visibility

- **Track-record** (since 2012) of significant **value crystallization** to **reinvest in organic growth**
- Fully leverages **distinctive development capabilities** and allows to **retain industrial value added** (e.g. O&M)
- **Growing appetite** for renewables and, in particular, for majority ownership



✓ **First asset rotation of majority stake** (80%) **executed in 2018** (499 MW) with **significant gains**

✓ **Visibility on execution for 2019**

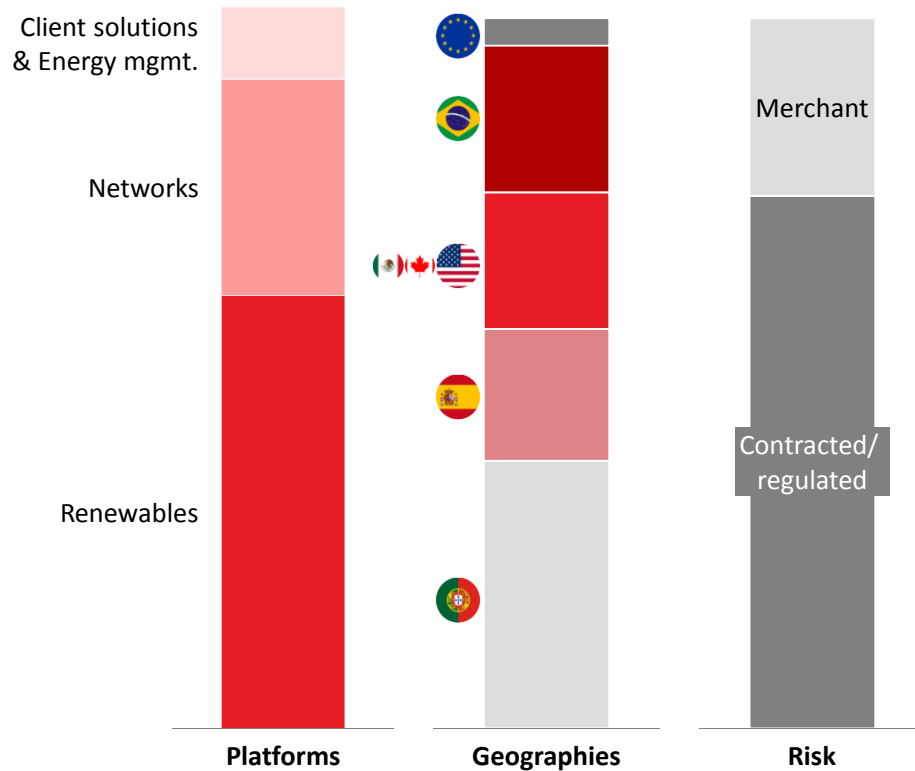
✓ **Prudent assumptions** for the 2020-22 period

# We will keep adjusting our portfolio to better align it with our strategy



## Our diversified portfolio...

Share of EBITDA 2018



## ...to be further optimized



Share of EBITDA 2018

Renewables / Networks	~90%	Growth businesses
Merchant	<25%	Decrease exposure while managing for value
Thermal	<10%	
North America	~20%	Growth geographies
Rest of Europe	~5%	
Brazil / LatAm	~20%	Maintain exposure and growth optionality
Iberia	~55%	Decrease exposure

## Asset rotation and disposals in Iberia moving forward as planned, with visibility provided on 25% of 2019-22 asset rotation target



### Asset rotation

	Europe 	Brazil 
Announcement	Apr-19	Jul-19
Capacity, Gross	997 MW	137 MW
Net	491 MW	
EV/MW	€1.6 M/MW	€2.2 M/MW
Avg. age	~6.9y	~1.0y
Cash Proceeds	€0.8 Bn	€0.3 Bn
	Jul-19	4Q19

### Asset Disposals Iberia

- Potential disposal of a portfolio of merchant generation assets in Portugal (~1.7 GW)
- Other complementary/alternative options also being considered

- ✓ Implicit **valuations above** business plan **assumptions**
- ✓ Deals agreed YTD: ~**25% of €4 Bn target proceeds for 2019-22**

- ✓ On track to deliver disposals' plan **by 2020**

# We will keep driving efficiency across the organization...

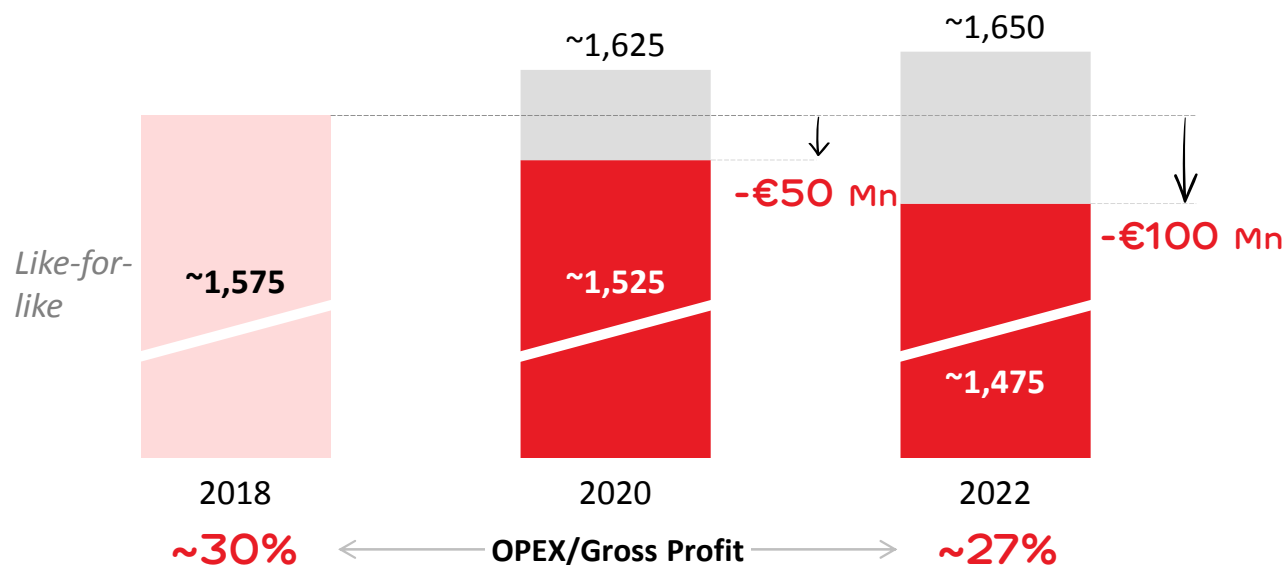


## We are committed to keep taking action...

- **Keep implementing OPEX efficiency programs** (including zero based budgeting)
- **Maintain generational replacement ratio**, embedding **new skills in the organization**
- **Continue investing in digitalization** to increase **assets intelligence** (e.g. smart meters), **operations and processes efficiency** (e.g. advanced analytics, predictive maintenance)

## ...to reduce OPEX/ gross margin, building on solid past delivery

Recurring OPEX, € Mn




**€100 Mn/yr like-for like savings (-2%/yr) until 2022, with ~€300 Mn cumulative in 2019-22**

## ... OPEX 1% decline in 9M19 is aligned with our targets for 2019-22



xx% Weight on Opex

Operations	Indicator	YoY Change	Main drivers
Iberia 55%	Opex <sup>1</sup>	0%	<ul style="list-style-type: none"> <li>• Inflation <b>+0.4% in PT and +0.8% in ES</b></li> <li>• Avg. headcount -4% YoY</li> </ul>
EDP Brasil 16%	Opex <sup>1</sup> in BRL	+3%	<ul style="list-style-type: none"> <li>• Avg. Inflation: <b>+3.9%<sup>2</sup></b></li> <li>• DisCos # Customers: +2% YoY</li> </ul>
EDPR 29%	Adj. Core Opex <sup>1</sup> /MW <sup>3</sup>	0%	<ul style="list-style-type: none"> <li>• Avg inflation in our geographies<sup>4</sup>: <b>+1.6%</b></li> <li>• Avg MW +3%</li> </ul>
	Opex ex-forex <sup>1</sup>	+2%	<ul style="list-style-type: none"> <li>• Generation avg. MW: +1%</li> </ul>
	Opex like-for-like (excl. growth)	-1%	<ul style="list-style-type: none"> <li>• DisCos # Customers: +1%</li> </ul>

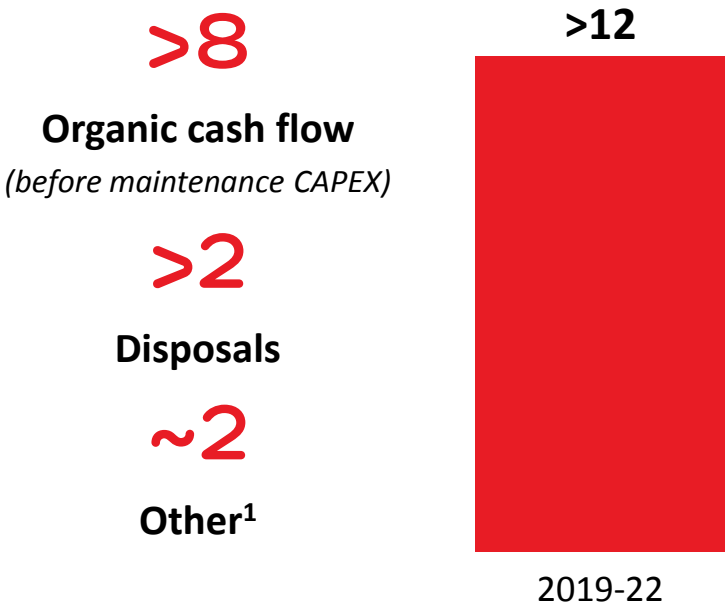
1 Recurring Opex Pro-forma (excludes IFRS16 impact) | 2 Avg. IPCA 9M19 vs. 9M18 | 3 Core Opex/Avg MW adjusted by IFRS16, offshore costs (mainly cross-charged to projects SPV's) and FX | 4 Inflation in 9M19 vs 9M18 in EDPR geographies, weighted by installed capacity in each country

We will commit our funds to support attractive shareholder remuneration, deleverage and significant growth

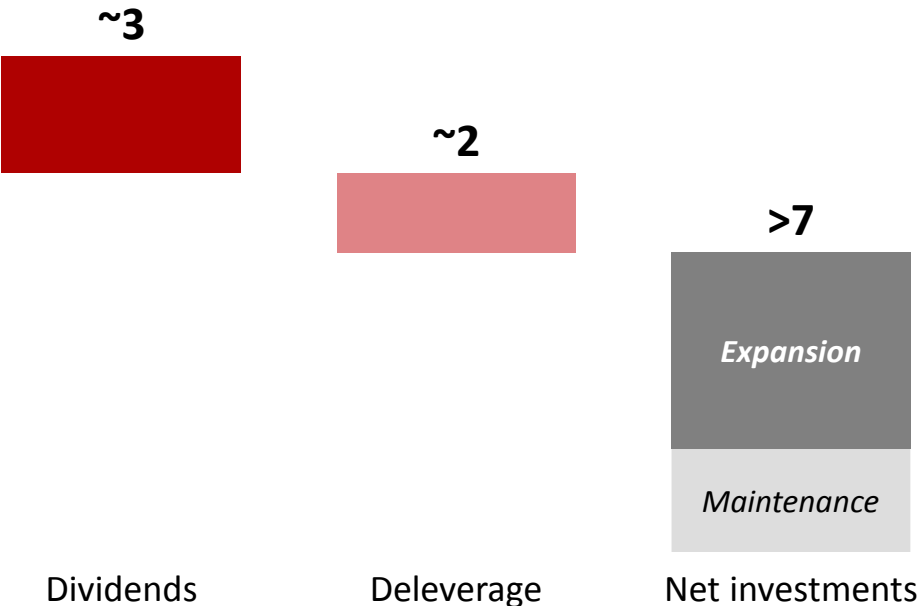


2019-22, € Bn

Sources of cash



Uses of cash



<sup>1</sup> Includes hybrid (equity content) issued in Jan-19, TEI proceeds and change in regulatory receivables

# Net debt at €13.8 Bn in Sep-19, with a Net debt/EBITDA of 3.8x

Change in Net Debt: Sep-19 vs. Dec-18, € Bn

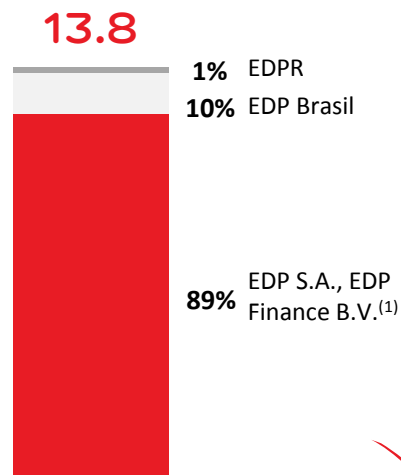


1) Based on net debt excluding regulatory receivables and on recurring EBITDA of the last 12 months. Excludes €829 Mn related with Leasings' debt accounted as Other Liabilities (IFRS 16 impact)

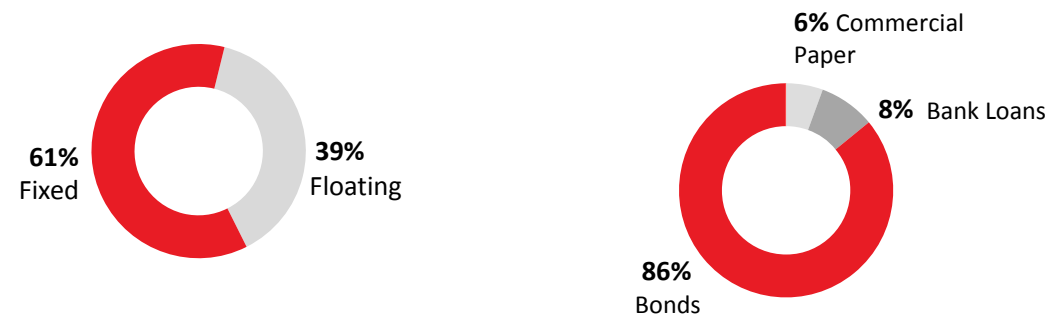
Over 89% of EDP's financial debt is raised at holding level, yielding efficient management of sources and uses of funds



EDP Consolidated net debt position | Sep-19 (€bn)



EDP debt position<sup>(2)</sup> | Sep-19 (€bn)



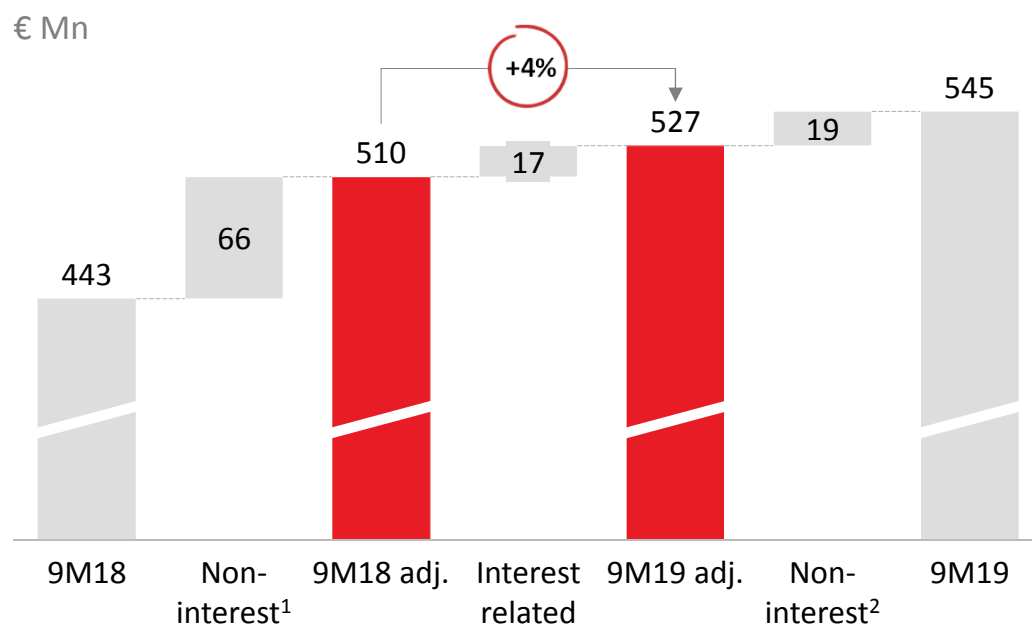
- **EDPR:** Mainly project finance related
- **EDP Brasil:** Ring-fenced policy, 'non-recourse' to EDP S.A.; Bank loans and capital markets
- **Holding & Other:** Holding acts as a 'bank' to its subsidiaries enhancing efficient management

(1) Including accrued interest, fair value hedge and collateral deposits associated with debt; (2) Nominal debt

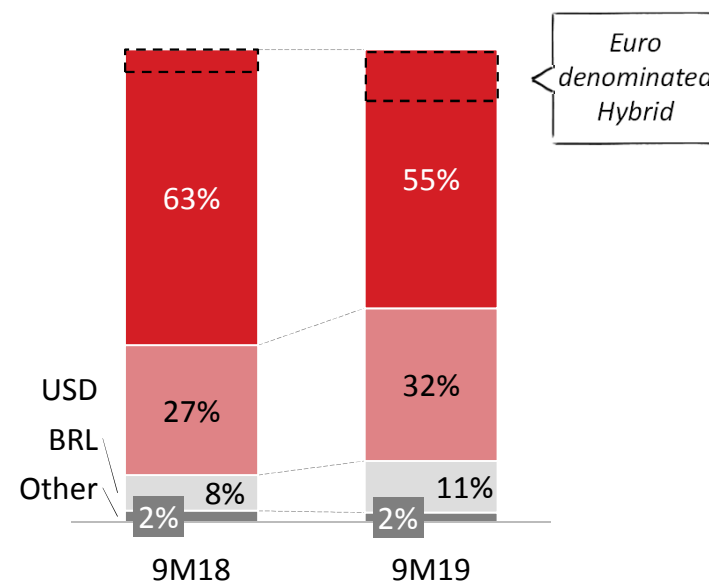
# Financial results adjusted for non-interest items up by 4% following 20bp increase of avg cost of debt and slight decline of avg. debt



## Net Financial Costs: 9M19 vs. 9M18



## Nominal debt by currency<sup>3</sup>



Avg. cost of debt **+20 bp** **4.0%** impacted by €1bn hybrid bond issue in Jan-19 and higher weight of USD & BRL

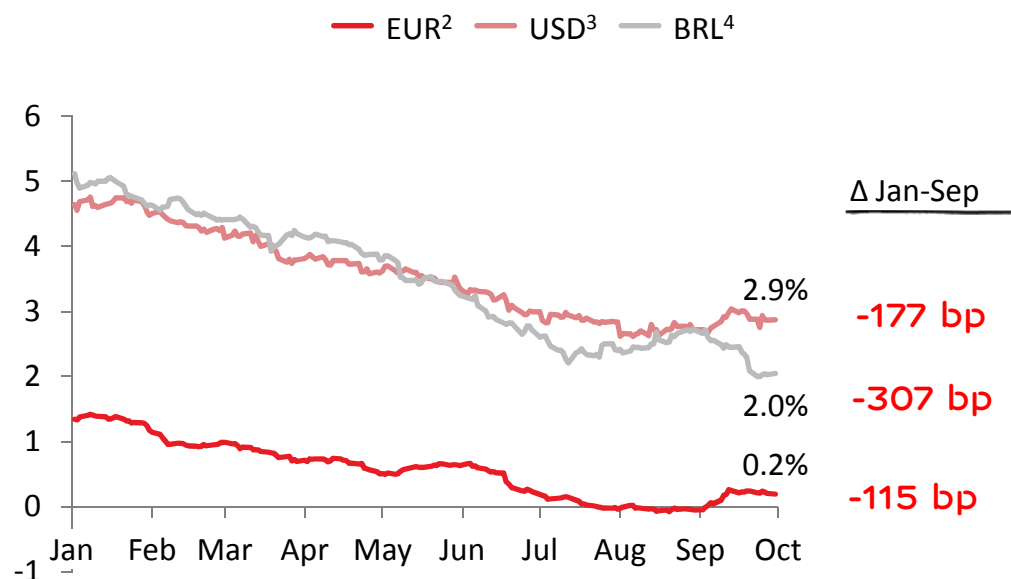
Avg. Debt **-1% YoY**

1) Other items in 9M18 includes: +€15 Mn of badwill arising from the acquisition of a stake in Celesc, +€19 Mn of Capital Gains (mostly Moray East asset rotation), +€8 Mn of Net foreign exchange differences and derivatives and +€25 Mn pro-forma impact from IFRS 16 | 2) Other items in 9M19 are related with Net foreign exchange differences and derivatives and €3 Mn of Capital Losses | 3) Includes FX Hedge

# Over 9M19 refinancing costs have moved significantly lower vs. our 2019-22 business plan assumptions

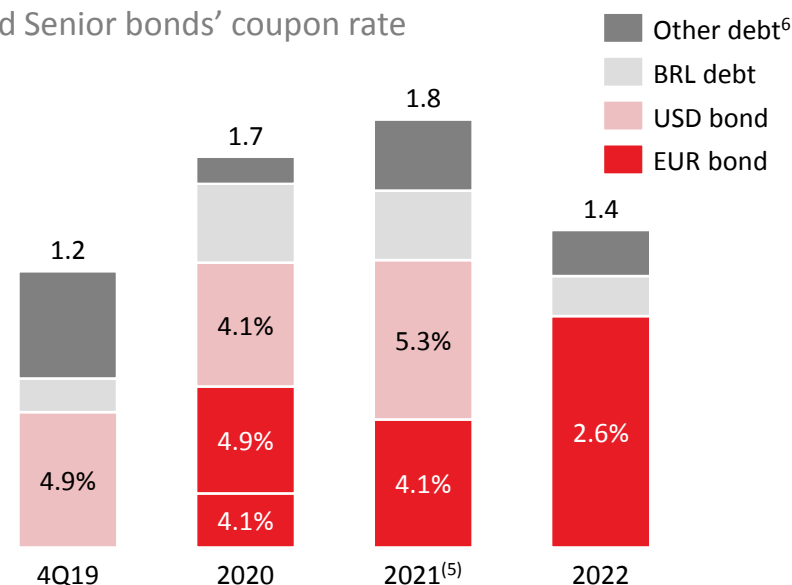


Market yields of 5y<sup>1</sup> EDP Bonds, % (Jan-Sep 2019)



EDP consolidated debt maturities in 4Q19-2022

€ Bn and Senior bonds' coupon rate



**€4 Bn of EUR and USD bonds maturing until 2022: interest costs significantly above current market yields**

**Financial liquidity €7.7 Bn (€5.9 Bn credit lines), covering refinancing needs beyond 2022**

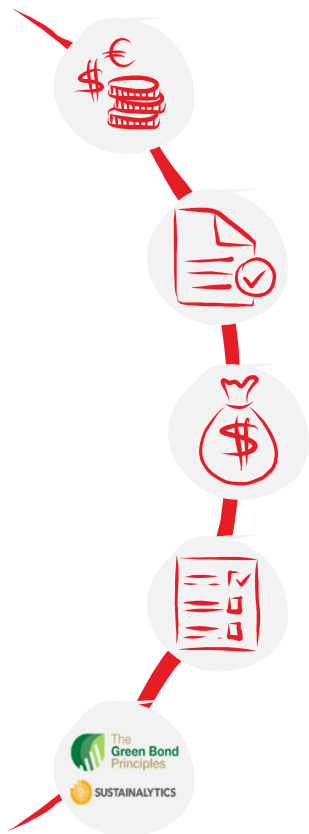
1 Except for BRL | 2 EDPPL 1.125 02/12/2024 REGS Corp | 3 EDPPL 3.625 07/15/2024 144A Corp | 4 ENBRBZ 8.3479 04/15/22 Corp | 5 Does not include €750 Mn hybrid bond with 5.375% coupon which has a call option on Mar-2021 | 6 Includes commercial paper and project finance

# We have a prudent financial policy



	<b>Active Debt &amp; Liquidity Management</b>	<b>Strong liquidity position</b> , preferring committed facilities – <b>liability management</b> to improve cost of debt and optimize capital	<b>12-24 months</b> of refinancing ahead
	<b>Centralized Financial Management</b>	<b>Centralized funding management</b> except for ring fenced Brazil/ LatAm	<b>&gt;80%</b> funding needs raised at Holding level
	<b>Rating</b>	<b>Target BBB rating in 2019-22</b> , by improving credit metrics	<b>&lt;3.0x</b> Net debt/EBITDA 2022
	<b>Diversified funding sources</b>	<b>Tap most efficient markets</b> , leveraging <b>appetite for green funding</b> , in line with sustainability strategy	<b>DCM/ international loan markets</b> wide range of banking counterparties
	<b>Interests &amp; Foreign Exchange Risks</b>	<b>Net investment hedge policy</b> funding in same currency of investments, <b>and active management</b> to minimize funding costs	<b>&gt;55%</b> of fixed rate debt

# EDP Green Bond Framework is aligned with the Green Bond Principle 2018 and it was externally verified by Sustainalytics



## Use of proceeds

- **Eligible green projects:** Includes design, construction, installation and maintenance of renewable energy production projects, such as:
  - wind power plants (onshore and offshore)
  - solar power plants (photovoltaic or concentrated solar power - CSP)

## Project evaluation & Selection

- EDP's Finance and Sustainability teams, jointly with EDP R representatives will assess, at least annually, the process of evaluation and selection of eligible projects, proceeds allocation and reporting.

## Management of proceeds

- The net proceeds of green bonds issued by EDP will be managed on a portfolio basis
- EDP will strive, over time, to achieve a level of allocation for the Eligible Green Project Portfolio which matches or exceeds the balance of net proceeds from its outstanding green bonds

## Reporting

- The allocation report will provide, as far as practical:
  - Total amount of investments and expenditures in the Eligible Green Project Portfolio
  - Amount and percentage of new and existing projects
  - Balance of unallocated proceeds
- The impact report may provide, as far as practical:
  - Expected installed capacity (MW)
  - Estimated annual CO2 emissions avoided (in tCO2)
  - Projected annual net production of renewable energy (MWh)

# Excellence Performance in 2019



## Second Party Opinion and Verification



22,1 pts | Medium risk  
13º in 192 companies







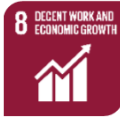







Sustainalytics ESG risk rating considers EDP's overall management of material ESG issues strong

- Issuance of €2.2 bn of Green Bonds and Green Hybrid since October 2018
- First Portuguese company issuing Green Bonds
- Listed in Euronext Green Bond





# EDP has clear Sustainability targets for 2022/2030, pursuing growth strictly under its sustainable development business model...



Priorities	EDP strategic objectives 2022	UN Sustainable Development Goals
<b>Decarbonising generation</b>	<ul style="list-style-type: none"> <li>Reach 78% of renewable installed capacity</li> <li>Reach &gt;1 GW of solar installed capacity</li> <li>Reduce 65% of CO<sub>2eq</sub> specific emissions</li> </ul>	 
<b>Electrifying consumption</b>	<ul style="list-style-type: none"> <li>Reach 30% of costumers with value-added services</li> <li>Strengthen the number of costumers with electric mobility solutions (100k by 2022)</li> <li>Improve customers' energy efficiency by 5 TWh</li> <li>Accelerate the roll-out of smart meters in the Iberian Peninsula (75% by 2022)</li> <li>Promote the acquisition of electric vehicles for EDP's light duty fleet (30% by 2022)</li> </ul>	  
<b>Promote Human Rights and social inclusion</b>	<ul style="list-style-type: none"> <li>Increase the rate of female employees, up to 30%</li> <li>Eliminate fatal accidents of employees and service providers</li> <li>Maintain the level of investment in the community (€200M until 2022)</li> <li>Ensure high participation in voluntary actions (20% by 2022)</li> <li>Ensure high participation in voluntary actions (20.000 hours by 2022)</li> <li>Invest in Access to Electrification (€20M until 2022)</li> </ul>	   
<b>Manage climate and environment</b>	<ul style="list-style-type: none"> <li>Maintain the average waste recovery rate of 75%</li> <li>Eliminate 100% of single-use plastics</li> <li>Achieve carbon neutrality in 100% of EDP's office buildings</li> </ul>	  






## ... And going beyond with its Ambition for 2030 defined



Priorities	EDP ambition for 2030	UN Sustainable Development Goals
<b>Decarbonising generation</b>	<ul style="list-style-type: none"> <li>85% of renewable installed capacity</li> <li>90% of renewable generation</li> <li>90% of CO<sub>2eq</sub> specific emissions</li> <li>3 GW of centralized solar installed capacity</li> </ul>	 
<b>Electrifying consumption</b>	<ul style="list-style-type: none"> <li>50% of customers with value-added services</li> <li>100% smart meters installed in the Iberian Peninsula</li> <li>1 GW distributed renewable capacity on customers</li> <li>100k electric vehicle charging points installed</li> <li>100% of EDP's light duty fleet electrified</li> </ul>	 

# Our key targets



Our strategic axis	Key initiatives	Key figures
 <b>Accelerated and focused growth</b>	<ul style="list-style-type: none"> <li>• Step-up growth in <b>renewables with &gt;7 GW</b> gross additions</li> <li>• Leverage on <b>asset rotation model</b> as a key complement to our strategy</li> <li>• Deliver <b>superior execution of transmission</b> projects in Brazil</li> </ul>	<b>&gt;€4 Bn</b> EBITDA 2022 (>5% CAGR) <b>~€12 Bn</b> CAPEX 2019-22
 <b>Continuous portfolio optimization</b>	<ul style="list-style-type: none"> <li>• <b>Recycle capital</b> to accelerate growth in renewables</li> <li>• <b>Reduce exposure</b> to Iberia/merchant/thermal</li> <li>• Accelerate <b>improvement of risk profile</b></li> </ul>	<b>&gt;€4 Bn</b> Asset rotations <b>&gt;€2 Bn</b> disposals
 <b>Solid balance sheet and low-risk profile</b>	<ul style="list-style-type: none"> <li>• <b>Commitment</b> to solid investment grade</li> <li>• <b>Reduce net debt</b> by ~€2 Bn</li> <li>• ~90% CAPEX in regulated/LT contracted</li> </ul>	<b>&lt;3.0x</b> Net Debt/EBITDA 2022 <b>&gt;75%</b> EBITDA regulated/LT contracted
 <b>Efficient and digitally enabled</b>	<ul style="list-style-type: none"> <li>• <b>Reinforce efficiency/cost reduction</b> programs</li> <li>• Implement <b>digital transformation plan</b></li> <li>• Foster a more <b>flexible and global organization</b></li> </ul>	<b>~€300 Mn</b> cumulative OPEX savings <b>-2%</b> CAGR OPEX like-for-like
 <b>Attractive shareholder remuneration</b>	<ul style="list-style-type: none"> <li>• <b>Distinctive green positioning</b></li> <li>• <b>Sustainable EPS growth</b> to deliver DPS increase</li> <li>• <b>Dividend floor</b> of €0.19</li> </ul>	<b>&gt;€1 Bn</b> Net Profit 2022 (~7% CAGR) <b>75 - 85%</b> Payout ratio, with 19 cents € floor

# 9M19 period marked by important steps to deliver 2019-2022 strategic targets



## 2019 GUIDANCE

Recurring EBITDA: **~€3.6bn**

Recurring Net Profit<sup>1</sup>: **~€0.8bn**

- Asset rotation Brazil closing in 4Q19
- Avg. renewables' output around historical avg. in 4Q19

## 2019-2022 STRATEGIC PLAN

On track to delivery



### Accelerated and focused growth

- **Renewables:** target additions for 2019-22 (7.0 GW) **70% secured with LT contracts** (4.9 GW)
- **Networks Brazil:** Visibility on distribution (**RAB +36%**); transmission ahead of schedule



### Continuous portfolio optimization

- **Asset Rotation:** **€1.1 bn** proceeds agreed, implicit valuations above strategic plan assumptions
- **Asset disposals program:** **on track to deliver our >€2.0bn** target proceeds before 2020 YE



### Solid Balance sheet and low-risk profile

- **Refinancing:** in Sep-19, €0.6 bn 7-Year bond, **0.4%** yield (€4 Bn bond maturities up to 22)



### Efficiency

- **-1% Opex** in 9M19 (Like-for-Like ex-growth)

(1) Assumes extraordinary energy tax as non recurrent  
INVESTOR PRESENTATION



Business Platforms  
&  
9M19 results

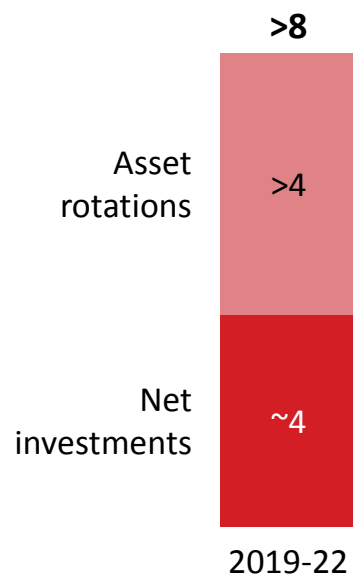
# Renewables - Key highlights



+XX Growth, 2019-22

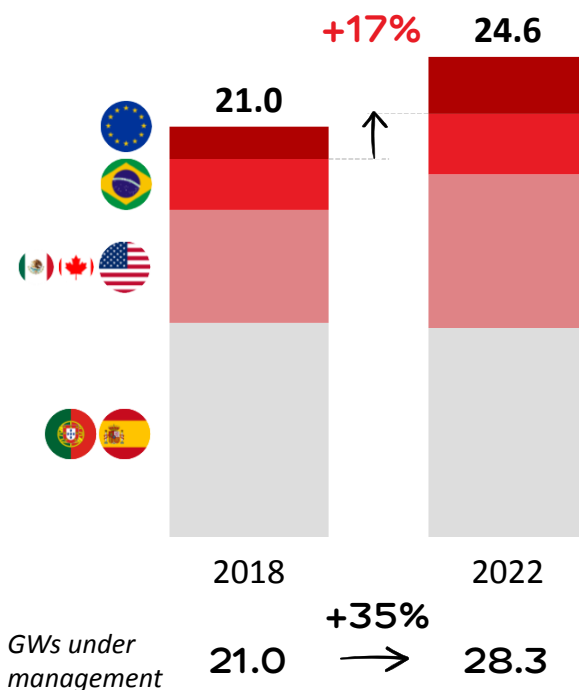
**>€8 Bn investment plan, supported by >€4 Bn asset rotations**

CAPEX, € Bn



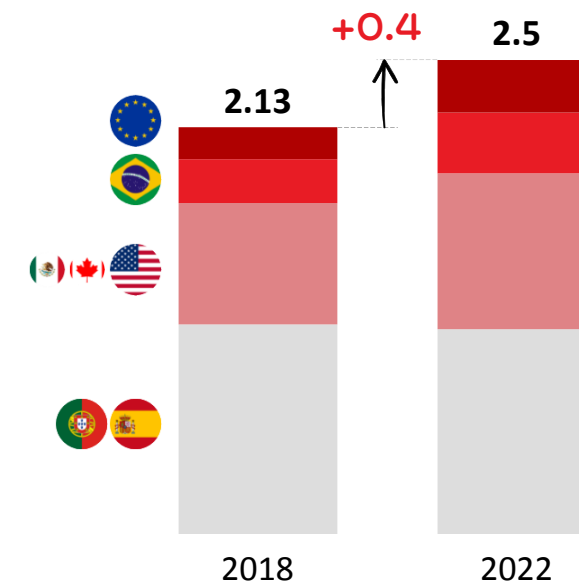
**Capacity to increase 17% supported by wind and solar growth**

Installed Capacity<sup>1</sup>, GW



**EBITDA to grow by 17%**

EBITDA, € Bn<sup>2</sup>



**Additional equity method earnings**  
Change 2018-22, € Bn

**+0.1**

<sup>1</sup> EBITDA + Equity GWs | <sup>2</sup> Disposals included in proportion of EBITDA of each platform

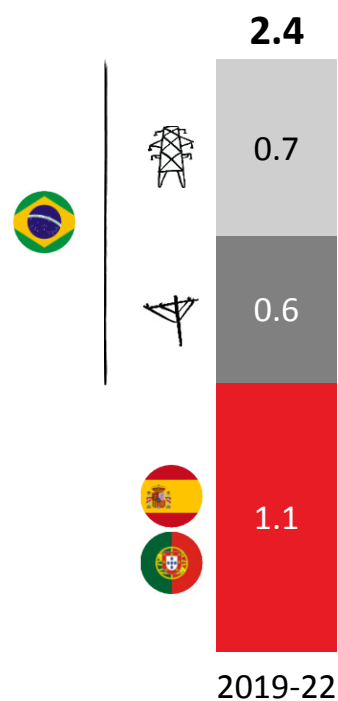
# Networks - Key highlights



+XX Growth, 2019-22

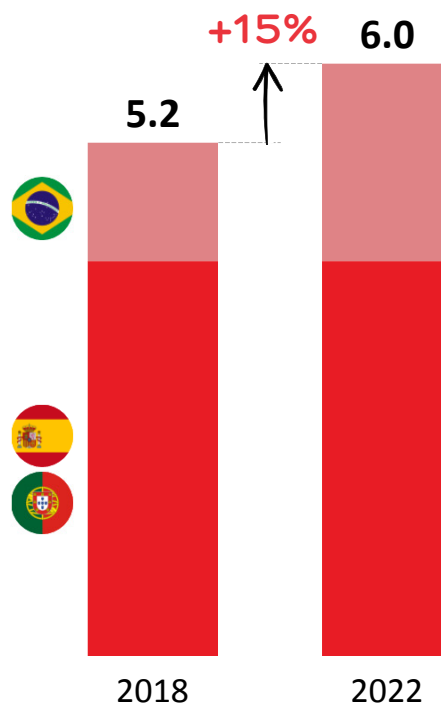
## ~€0.6 Bn annual CAPEX in Networks

CAPEX, € Bn



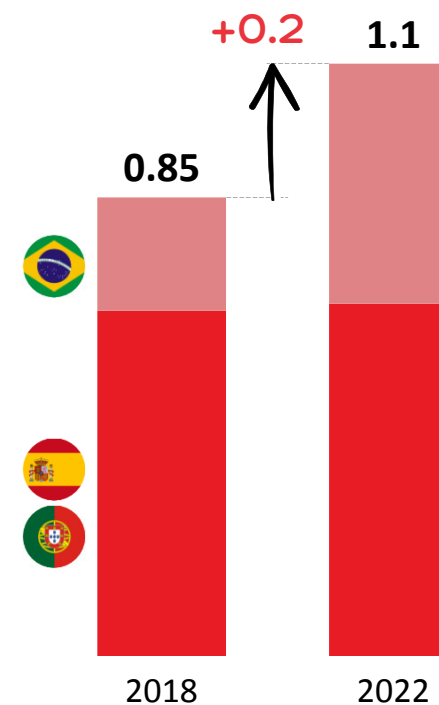
## Regulated Asset Base to increase 15%

RAB<sup>1</sup>, € Bn



## EBITDA to grow driven by investments in Brazil

EBITDA, € Bn<sup>2</sup>



<sup>1</sup> Includes 23.56% of CELESC and invested capital in Transmission in Brazil (RAB valued under different economic model than distribution) | <sup>2</sup> Disposals included in proportion of EBITDA of each platform

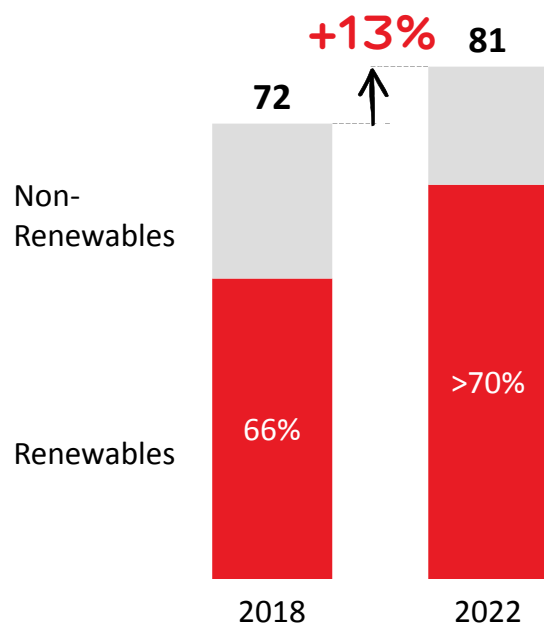
# Client solutions & energy management - Key highlights



+XX Growth, 2019-22

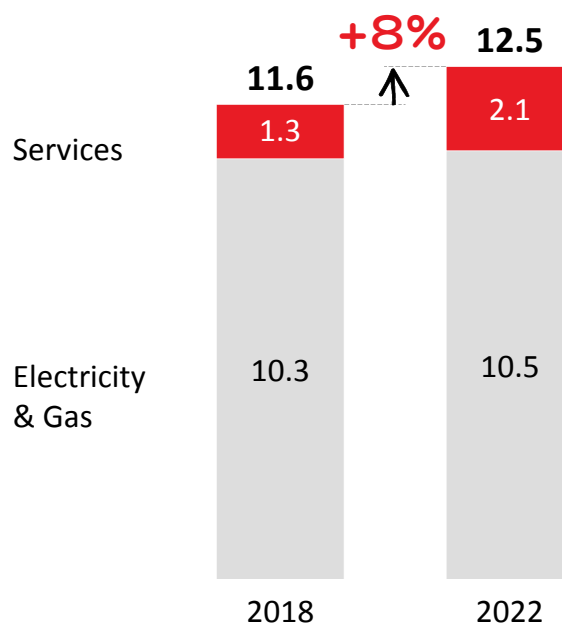
## Strong increase of energy under management

TWh



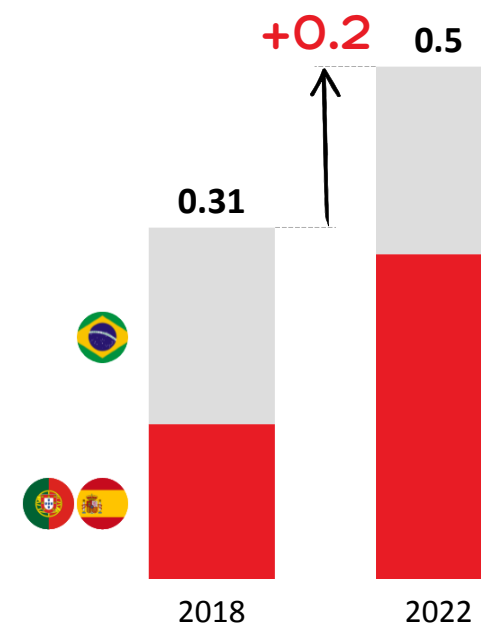
## Growth driven from services contracts increase

# of contracts, Mn



## Significant EBITDA growth in Iberia

EBITDA, € Bn<sup>1</sup>



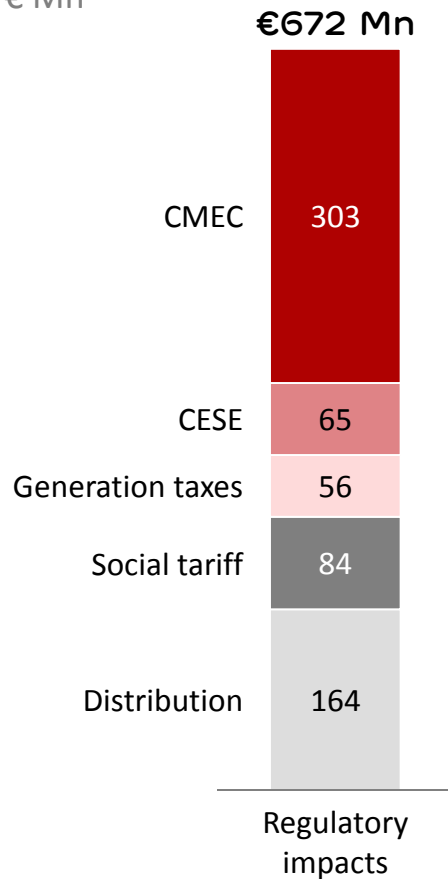
<sup>1</sup> Disposals included in proportion of EBITDA of each platform

# 2018 Results penalized by heavy sector taxes and adverse regulatory decisions in Portugal



## Pre-tax impact in Portugal 2018

€ Mn



### CMEC ONE-OFFS 2018

- **Retroactive** cuts on innovatory aspects (€285 Mn) and final adjustments (€18 Mn)

### CESE (Extraordinary Energy Tax)

- **0.85%** on net assets; **€25 Mn distribution** + **€40 Mn generation**

### GENERATION TAXES

- **Clawback** (€50 Mn), **ISP/CO<sub>2</sub>** (€6 Mn)

### SOCIAL TARIFF

- **Financed by conventional generation assets**, against EC guidelines

### YoY CHANGE OF REGULATED REVENUES DISTRIBUTION

- Adverse impact from start of **new regulatory period** (-€164 Mn)

## 9M19 Key Highlights

---



### EBITDA: +10% YoY

- ↑ Renewables growth (0.9 GW built up YoY) and Asset Rotation deals (0.6 GW agreed YTD)
- ↑ Networks with robust growth in Brazil (Distribution & Transmission)
- ↓ Hydro resources Portugal in 9M19 -39% vs. historical average

**€2,661 Mn** EBITDA

### Recurring Net Profit: +7% YoY

- ↓ Avg. cost of debt 4.0% on higher weight of hybrid and USD/BRL debt: to be diluted with refinancing
- ↓ Negative non recurring items<sup>1</sup>: CMEC provision in 3Q18 (-€285 Mn), Fridão provision in 3Q19 (-€87 Mn)

**€585 Mn** Recurring Net Profit

### Net debt: -5% YoY

- ↑ Recurring Organic Free Cash Flow of €1.0 Bn: +1% YoY
- ↑ Expansion investments of €1.3 Bn balanced by asset rotation proceeds of €1.0 Bn

**€13.8 Bn** Net Debt

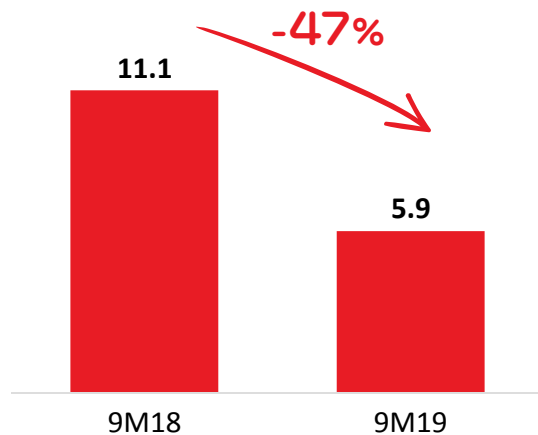
1) Amount gross of taxes

## Low hydro resources in Iberia in 9M19, while wind resources stable YoY but still below average



### EDP Hydro production in Iberia

TWh



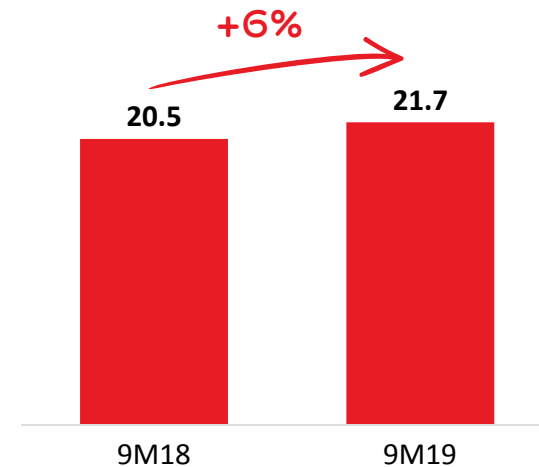
Hydro resources  
vs. LT Avg.<sup>1</sup>

+20%

-39% ↓

### EDP Wind production

TWh



Wind resources  
vs. LT Avg. (P50)

-4%

-4%

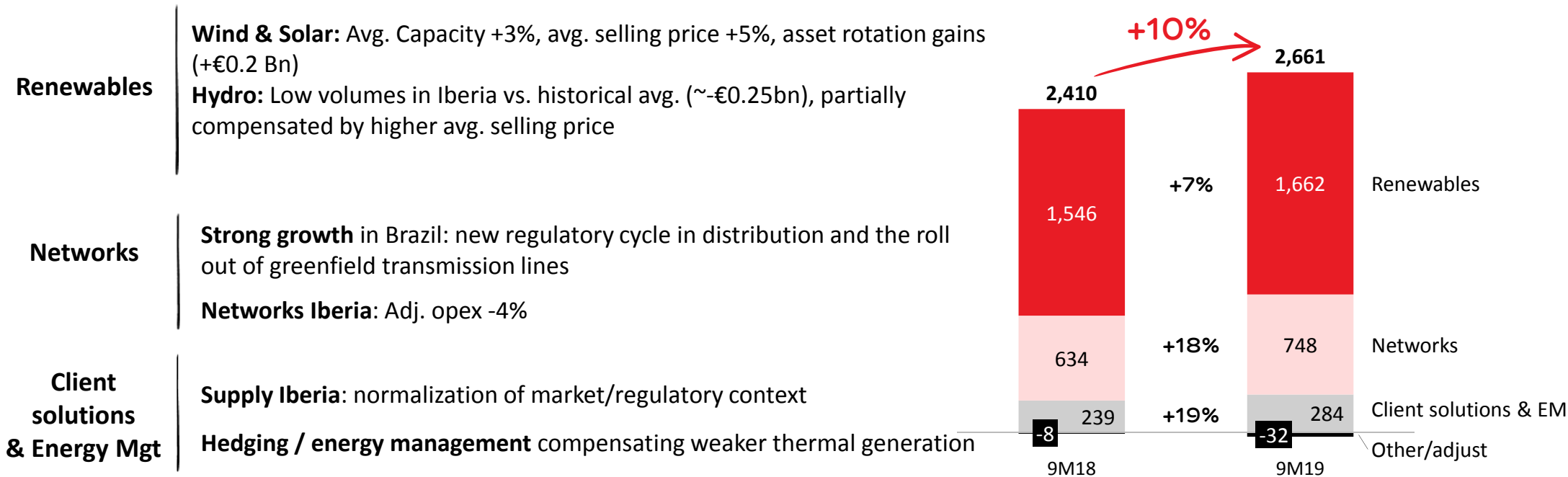
1) Hydro resources reference from Portugal only

# EBITDA +10%, with strong growth in renewables (new capacity and asset rotation) and networks (expansion in Brazil, lower Opex Iberia)



## EBITDA 9M19

€ Mn; YoY growth, %

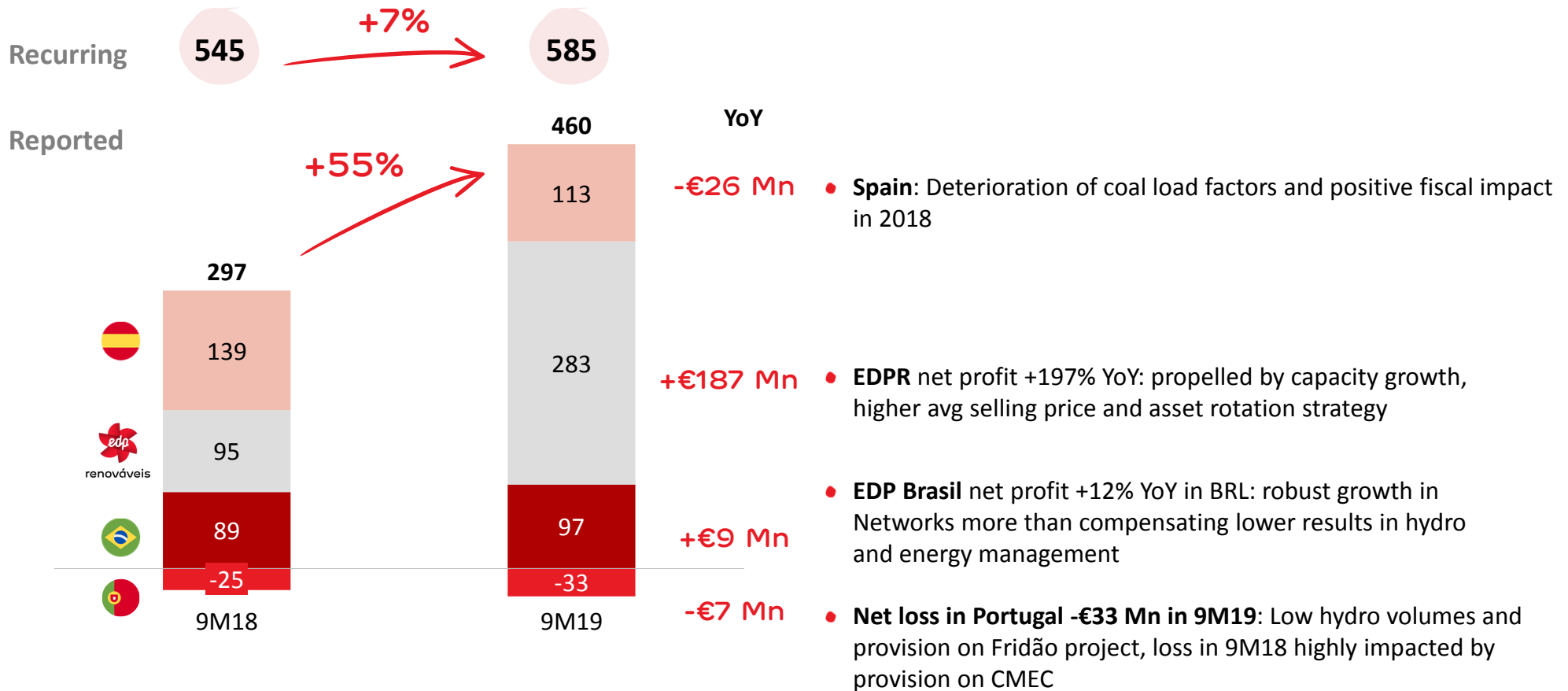


# Net Profit +55%, supported by renewables growth, Portuguese operations depressed by low hydro (9M19), one-offs and regulation



Net Profit 9M19

€ Mn





Annex

# We will grow under a disciplined investment framework



## Clear investment framework...

		Threshold	Achieved <sup>1</sup>
Attractive returns	IRR/WACC	>1.4x	~1.5x ✓
	NPV/CAPEX	25%	~35% ✓
Sound contracted profile and time to cash	Contracted period	>15 yr	~20 yr ✓
	Contracted NPV	>60%	~70% ✓

## ... with a track record of delivery

### Leader in renewables PPA origination...

- Top-3 PPAs secured in USA 2016-18
- #2 C&I PPAs wind onshore in 2018 (0.7 GW signed)

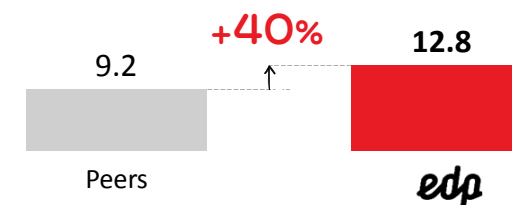
### ...with a selective approach (2016-2018)

- ~200 RfPs answered
- 5% PPAs won

### Renewables

### Brazil Transmission auctions

Regulated revenue/CAPEX<sup>2</sup> 2017-2018, %



### Networks

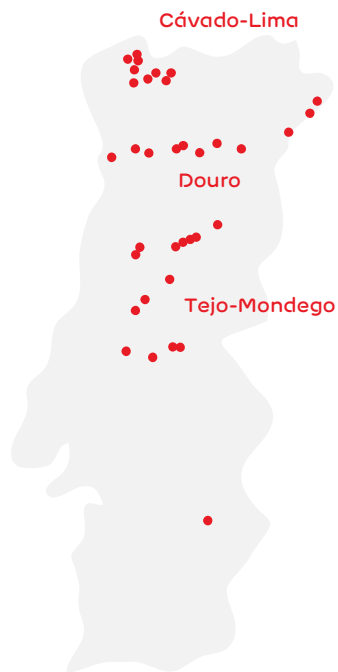
<sup>1</sup> Average last 60 projects | <sup>2</sup> Regulated revenue (RAP – Receita Anual Permitida) bid by the company and CAPEX assumed by ANEEL  
SOURCE: BNEF  
INVESTOR PRESENTATION

# Hydro: 7.2 GW of capacity in Iberia, of which 4.3 GW with reservoir, 2.8 GW pumping



## Hydro plants in Iberia<sup>1</sup>

### Hydro plants in Portugal



		Installed capacity		Net generation <sup>1</sup> TWh	Avg. concession maturity
		MW	%		
Portugal	Total	6,767	94%	10.7	2054
	Reservoir	4,294	60%		
	Of which pumping	2,806	40%		
	Run-of-River <sup>2</sup>	2,472	34%		
Spain	Total	426	6%	0.8	2051
Total Iberia		7,193		11.5	

**Reservoir:** provides flexibility, increasingly important in high renewables penetration markets

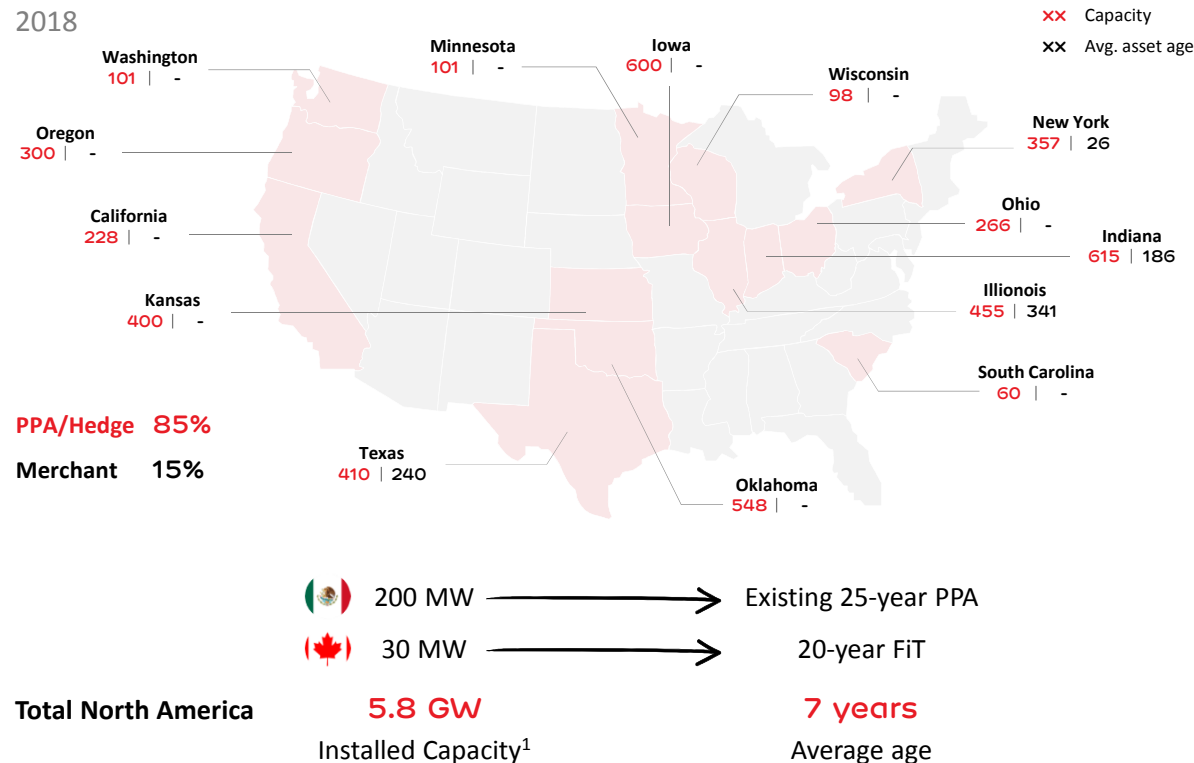
**Pumping:** provides flexibility and storage, benefiting from peak / off peak arbitrage

<sup>1</sup> In an average hydro year. Excludes Special Regime Generation in Portugal | <sup>2</sup> Includes small-hydro

# Wind & Solar North America: 5.8 GW of capacity in the US, Mexico and Canada



## Wind & Solar installed capacity



## Remuneration framework for wind onshore in the US

- Sales can be agreed under **PPAs**, **hedged** in forward markets or **merchant prices**
- **Green certificates** (Renewable Energy Credits, REC) subject to each state regulation
- **Tax incentive**
  - **Production Tax Credits (PTC)** US\$24/MWh in 2018, collected for 10-years since COD
  - **Investment Tax Credits (ITC)** % of CAPEX

## Tax incentives phase-out schedule in the US by year of commissioning (COD)

	2019	2020	2021	2022	2023	>2023
Wind PTC <sup>2</sup>	100%		80%	60%	40%	
Solar ITC <sup>3</sup>		30%		26%	22%	10%



<sup>1</sup> EBITDA + Equity capacity (Only EBITDA capacity represented in the map) | 2 % of PTC | 3 % of CAPEX  
INVESTOR PRESENTATION

# Networks Iberia: 55 TWh of electricity distributed in Iberia, with superior quality of service



## Networks portfolio in Iberia

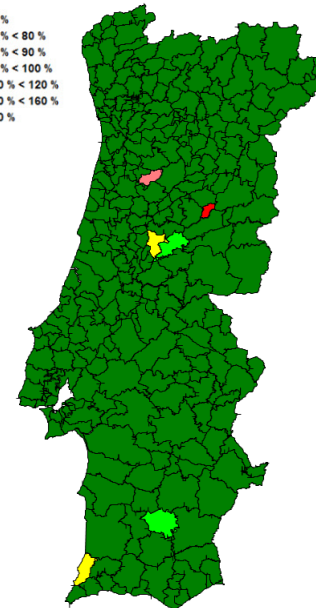
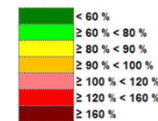
2018

			Iberia
<b>Electricity Distributed</b> TWh	46.1	9.4	55.4
<b>Supply points</b> Thousand	6,226	666	6,892
<b>Network</b> Thousand km	226	21	247
<b>Regulated Asset Base,</b> € Bn	3.0	1.0	4.0

## Electricity distribution in Portugal

### Quality service<sup>1</sup>

2017



### High/Medium Voltage

- Country-level concession up to 2044
- RAB €1.8 Bn
- RoRAB<sup>2</sup> 5.4% (2018)

### Low Voltage

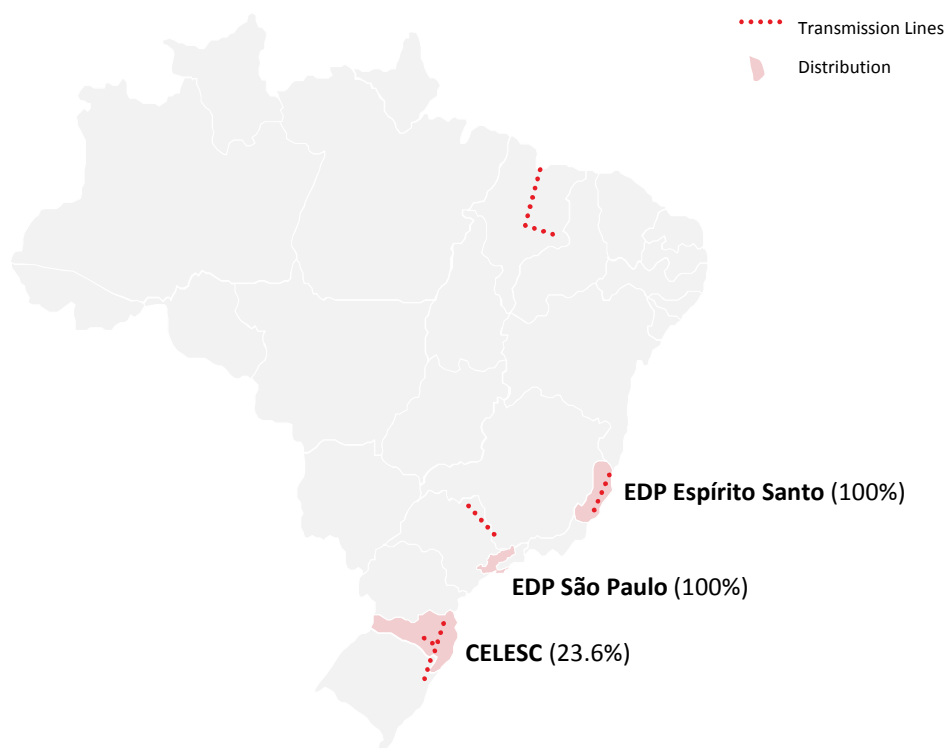
- 278 concessions, 92% of them expiring in 2021-22
- RAB €1.2 Bn
- RoRAB<sup>2</sup> 5.7% (2018)

<sup>1</sup> Provisory data; TIEPI MV, % of the reference value defined in the Quality Service Regulation | <sup>2</sup> Nominal pre-tax, before CESE

# Networks Brazil: Growth driven by the stable regulatory environment and transmission opportunities



## Networks geographical footprint



## Distribution assets<sup>1</sup>

Distribution Subsidiary	EDP's stake	Net RAB, R\$ Mn	Next regulatory review <sup>2</sup>	Concession Term	Supply points, Th	Distributed Energy, TWh
EDP Espírito Santo	100%	2,581	Aug-22	2025	1,887	15.2
EDP São Paulo	100%	1,667	Oct-19	2028	1,564	9.8
<b>EBITDA consolidated</b>		<b>3,682</b>			<b>3,451</b>	<b>25.0</b>
CELESC	24%	3,007	Aug-21	2045	2,977	24.4
<b>Total</b>		<b>6,689</b>			<b>6,427</b>	<b>48.8</b>

## Transmission assets

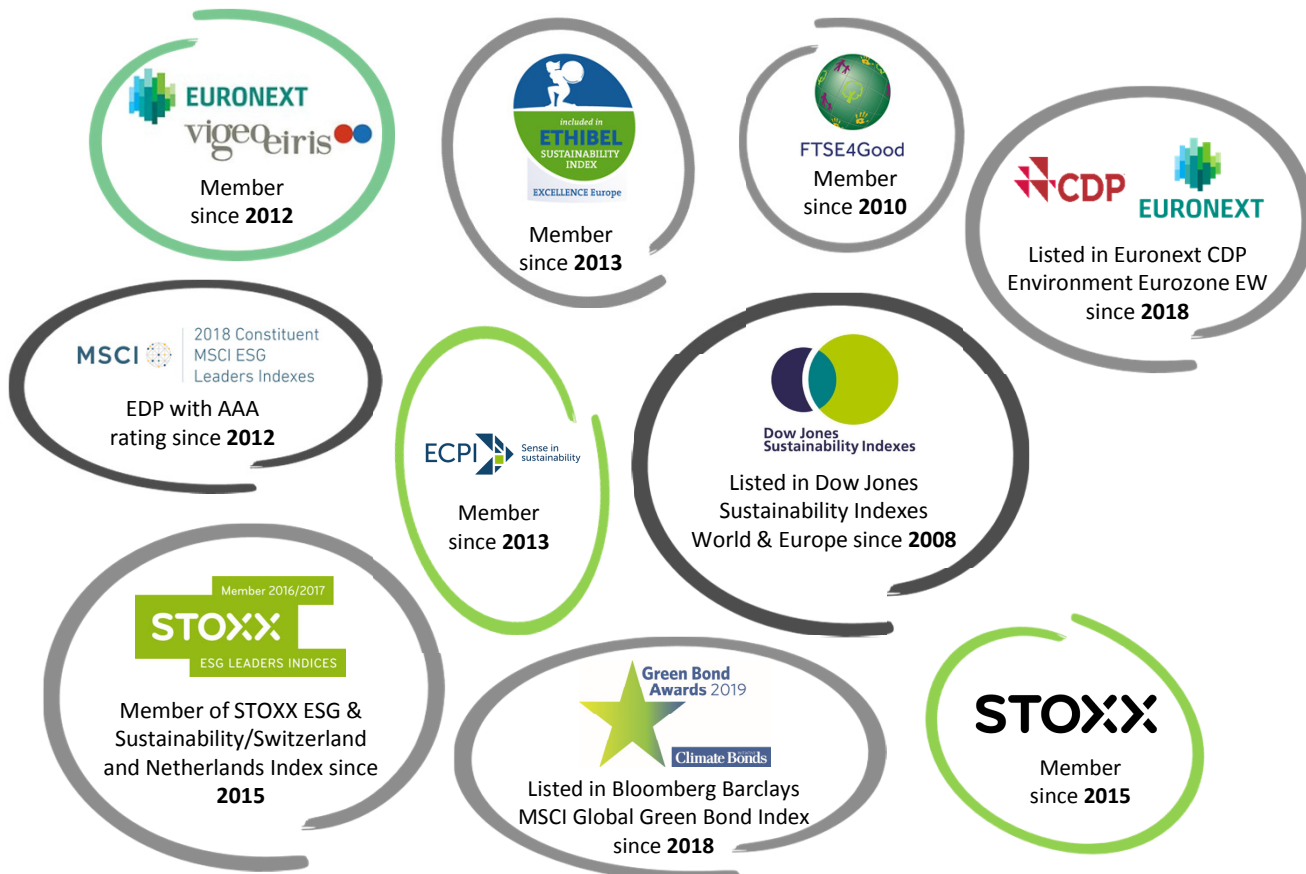
Lots <sup>3</sup>	Km	Reg. Revenues <sup>5</sup> , R\$ Mn	CAPEX <sup>6</sup> , R\$ Mn	COD <sup>4</sup>
ES - Lot 24	113	21	114	Dec-18
SC - Lot 21	485	172	1,310	Sep-20
MA I - Lot 7	123	66	368	Apr-21
MA II - Lot 11	203	30	215	Aug-20
SP-MG Lot 18	375	205	1,485	Mar-21
SC- RS Lot Q	142	40	405	Dec-21
<b>Total</b>	<b>1,441</b>	<b>540</b>	<b>3,900</b>	

1 Data for EDP São Paulo, EDP Espírito Santo and Celesc refers to 2018 | 2 RoRAB of 8.1% already defined | 3 Lot 24 from the 2nd phase of the tender nº 013/2015, Lot Q was acquired from other companies and the remaining lots are from tender nº05/2016 | 4 Refers to expected COD, which is sooner than the tender's bid | 5. Value of Regulated Revenue at the tender's date | 6. Inflation-adjusted CAPEX

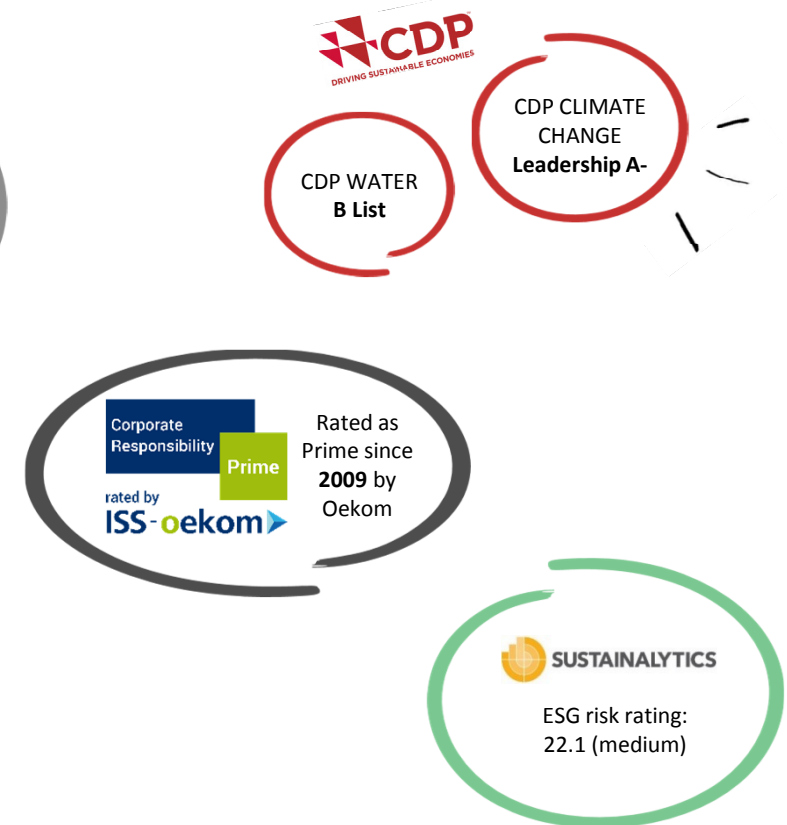
# EDP's track record in sustainability is strong and results in a well-established position



## Some of the ESG Indices where EDP is a member<sup>(1)</sup>



## Strong extra-financing rating<sup>(1)</sup>



(1) For additional details, please refer to: <https://www.edp.com/en/sustainability/economic-dimension/sustainability-indexes/sustainability-indexes> and EDP Sustainability Report 2017

# Our strong commitment with ESG was recognized by Dow Jones Sustainability Index 2019 ranking: #1 Global Integrated Utility



**Global Leader** within **integrated utilities**



**Best-in-Class** (score 100/100) in 9 criteria namely:

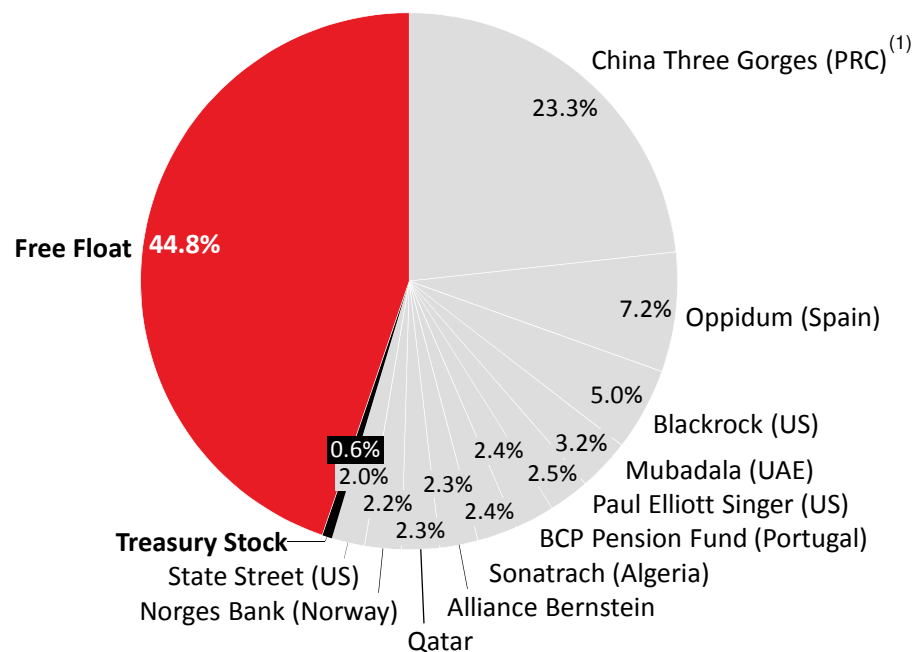
- Climate Strategy
- Water Related Risks
- Stakeholder Engagement
- Environmental & Social Reporting
- Human Rights



- **2050 Commitment: Carbon neutrally** EDP is one of the 87 global corporations that have recently **pledged to reduce emissions and ensure global warming does not exceed 1.5°C** and reaching net-zero emissions by no later than 2050
- **2030 Commitment:**
  - -90% CO<sub>2</sub> specific emissions (vs. 2005 levels)
  - 90% renewables generation in our mix

**Strong engagement with decarbonization: Leading the energy transition to create superior value**

## EDP Shareholder Structure (November 26<sup>th</sup>, 2019)



## Corporate Governance Highlights

### Dual model

- Executive Board of Directors (EBD) and General and Supervisory Board (GSB)
- All major corporate and strategic decisions scrutinized by the GSB after proposal of the EBD

### GSB Composition

- 21 non-executive members, of which the majority are independent

### EBD Composition

- 9 executive members

(1) According to the Portuguese Securities Code the voting rights inherent to the shares held by China Three Gorges are attributable to the People's Republic of China.

## Key data on EDP securities



Bonds	Currency	Amount (million)	Maturity	Coupon	Market Price (Bid)	Market Yield	ISIN Code
EDP BV Euro MTN	EUR	233	29/06/2020	4.125%	102.8	-0.122%	XS0223447227
EDP BV Euro MTN	EUR	462	14/09/2020	4.875%	104.3	-0.112%	XS0970695572
EDP BV Euro MTN	EUR	553	20/01/2021	4.125%	105.0	-0.009%	XS0995380580
EDP BV Euro MTN	EUR	1,000	18/01/2022	2.625%	105.7	0.02%	XS1111324700
EDP BV Euro MTN	EUR	600	23/03/2023	2.375%	107.7	0.09%	XS1385395121
EDP BV Euro MTN	EUR	600	29/09/2023	1.875%	106.5	0.19%	XS1558083652
EDP BV Euro MTN	EUR	1,000	12/02/2024	1.125%	103.9	0.21%	XS1471646965
EDP BV Euro MTN	EUR	750	22/04/2025	2.000%	109.0	0.33%	XS1222590488
EDP BV Euro MTN	EUR	600	13/10/2025	1.875%	109.0	0.34%	XS1893621026
EDP BV Euro MTN	EUR	750	26/01/2026	1.625%	107.6	0.39%	XS1846632104
EDP BV Euro MTN	EUR	600	16/09/2026	0.375%	99.7	0.42%	XS2053052095
EDP BV Euro MTN	EUR	500	22/11/2027	1.500%	107.6	0.53%	XS1721051495
EDP Hybrid Notes	EUR	750	16/09/2075	5.375%	106.3	0.69%	PTEDPUOM0024
EDP Hybrid Notes	EUR	1,000	30/04/2079	4.496%	111.0	3.67%	PTEDPKOM0034
EDP BV Euro MTN	GBP	325	04/01/2024	8.625%	128.3	1.56%	XS0397015537
EDP BV Euro-Dollar	USD	750	14/01/2021	5.250%	103.3	2.44%	XS1014868779
EDP BV Euro-Dollar	USD	583	15/01/2020	4.125%	100.3	2.36%	XS1140811750
EDP BV Euro-Dollar	USD	1,000	15/07/2024	3.625%	103.4	2.85%	XS1638075488

Equity	Stock Exchange	(€)	P/E 2019E	P/E 2020E	P/BV 2019E	DY 2019E	Market Cap	Avg. Daily Volume 52 Weeks (# tm)
EDP SA	Euronext Lisbon	€3.62	17.0	16.5	1.4	5.2	€13,240m	6.5
EDP Renováveis	Euronext Lisbon	€9.87	38.0	25.2	1.3	0.8	€8,610m	0.1
EDP Brasil	BM&FBOVESPA	R\$18.86	11.5	12.6	1.4	3.7	R\$11,445m	3.0

Source: Bloomberg as of October 31<sup>st</sup>, 2019.

(1) Amounts shown are net of notes repurchased in Dec-18. (2) Initial issue size at \$1bn; amount shown net of \$31m and \$333m of notes repurchased in Dec-16 and Dec-17, respectively; (3) Initial issue size at \$750m; amount shown net of \$167m of notes repurchased in Dec-17.

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## IR Contacts

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## Next Events

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- Dec 4<sup>th</sup>: Soc. Générale Conference (Paris)
- Dec 10<sup>th</sup>: Crédit Agricole Sustainability Bonds Conf. (Paris)
- Feb 20<sup>th</sup>: YE19 results