POLÍTICAS PÚBLICAS PARA A EFICIÊNCIA ENERGÉTICA E ENERGIAS RENOVÁVEIS EM PORTUGAL

Maria João Rodrigues

o contexto europeu

instrumentos nacionais de planeamento

as energias renováveis e o desafio do autoconsumo

o contexto europeu

união energia

clean

secure energy affordable

Towards an Energy Union

1. ENERGY THAT IS SECURE FOR ALL CITIZENS

TODAY:

The EU is the largest energy importer in the world, costing **€400 billion/year**, or more than **€1 billion/day**.

Over **10%** of the **EUROPEAN POPULATION** cannot pay their energy bills.

WITH THE ENERGY UNION:

SECURE ENERGY in every member state, to every citizen. Based on **SOLIDARITY AND TRUST**.

Speaking with **ONE VOICE GLOBALLY**.

2. ENERGY THAT FLOWS FREELY ACROSS BORDERS

TODAY:

Markets are largely national. This means **LESS CHOICE, LESS RESILIENCE, HIGHER PRICES**.

Some EU countries are **ENERGY ISLANDS**. **ENERGY INFRASTRUCTURE** is **AGEING**.

WITH THE ENERGY UNION:

Fully **INTEGRATED MARKETS**.

BETTER DEAL for consumers.

3. ENERGY-EFFICIENT PRODUCTS, TECHNOLOGIES, JOBS AND SKILLS OF TOMORROW

TODAY:

90% of housing stock is **ENERGY INEFFICIENT**. **94%** of transport relies on oil.

WITH THE ENERGY UNION:

STRONG, COMPETITIVE COMPANIES across Europe deliver the energy efficient products, technologies, jobs and skills of tomorrow.

ENERGY EFFICIENCY IMPROVED by at least **27%** by 2030.

4. AN ECONOMY THAT IS CLEAN, LOW CARBON AND ENVIRONMENTALLY FRIENDLY

TODAY:

CLIMATE CHANGE leads to severe, pervasive and irreversible impacts for the world.

Urgent need to limit the rise in global average temperature to below **2°C**.

WITH THE ENERGY UNION:

RENEWABLE ENERGY boosted, representing at least **27%** of the energy consumed in the EU by 2030.

Greenhouse gases cut by at least **40%** by 2030.

5. NEW TECHNOLOGY FOR TOMORROW'S ENERGY

TODAY:

The EU has **LOST GROUND** on clean, **LOW-CARBON TECHNOLOGIES**.

WITH THE ENERGY UNION:

LOWER BILLS for EU citizens.

EUROPEAN COMPANIES to be world leading on renewable and low-carbon technologies.

#EnergyUnion

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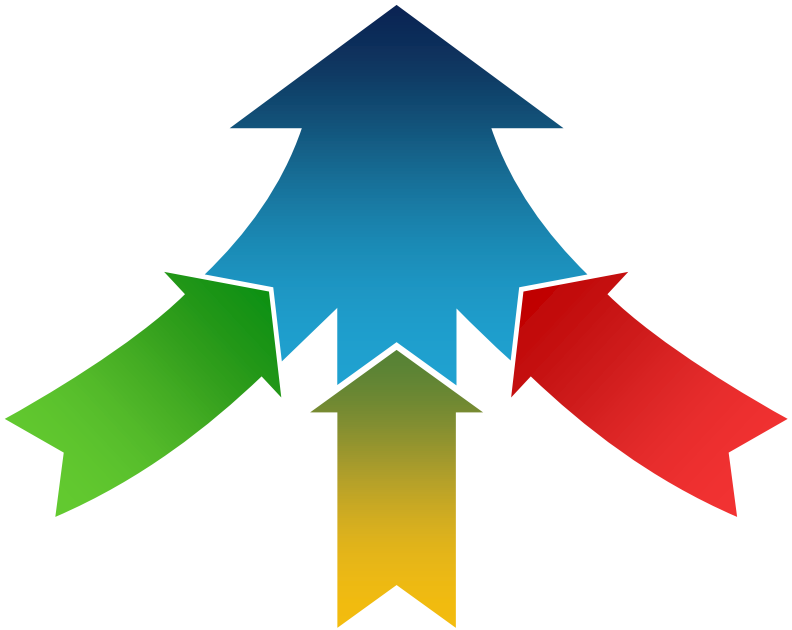
REVOLUÇÃO
SETOR ELETRICO?



consumo decrescente

eficiência energética

produção renovável local

produção intermitente

produção renovável local e centralizada

desenho mercados

integração geográfica

mercados diários e intradiários

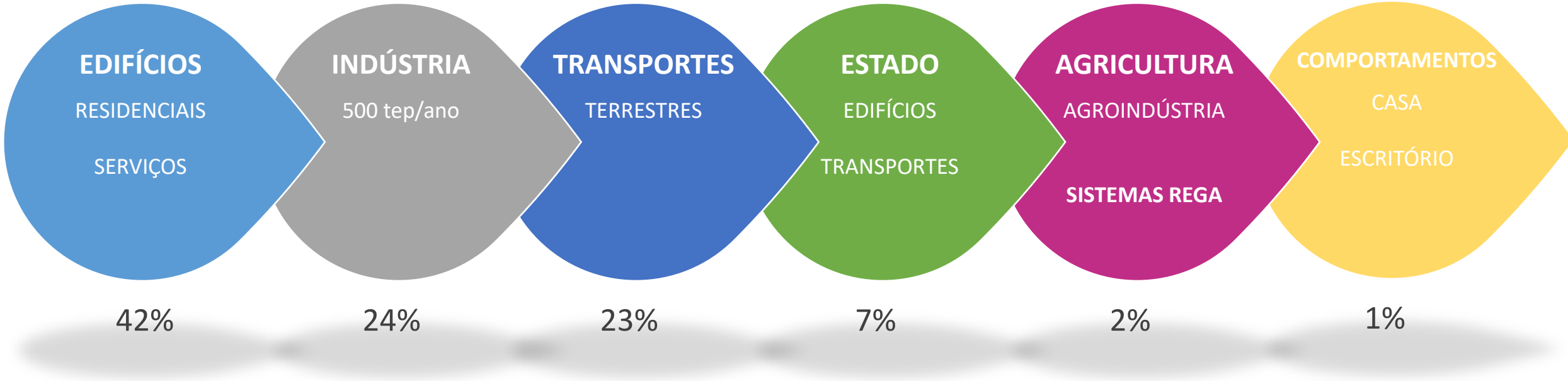
mercados de serviços sistema

instrumentos nacionais de planeamento

PNAEE plano nacional de ação para a eficiência energética

2013-2016

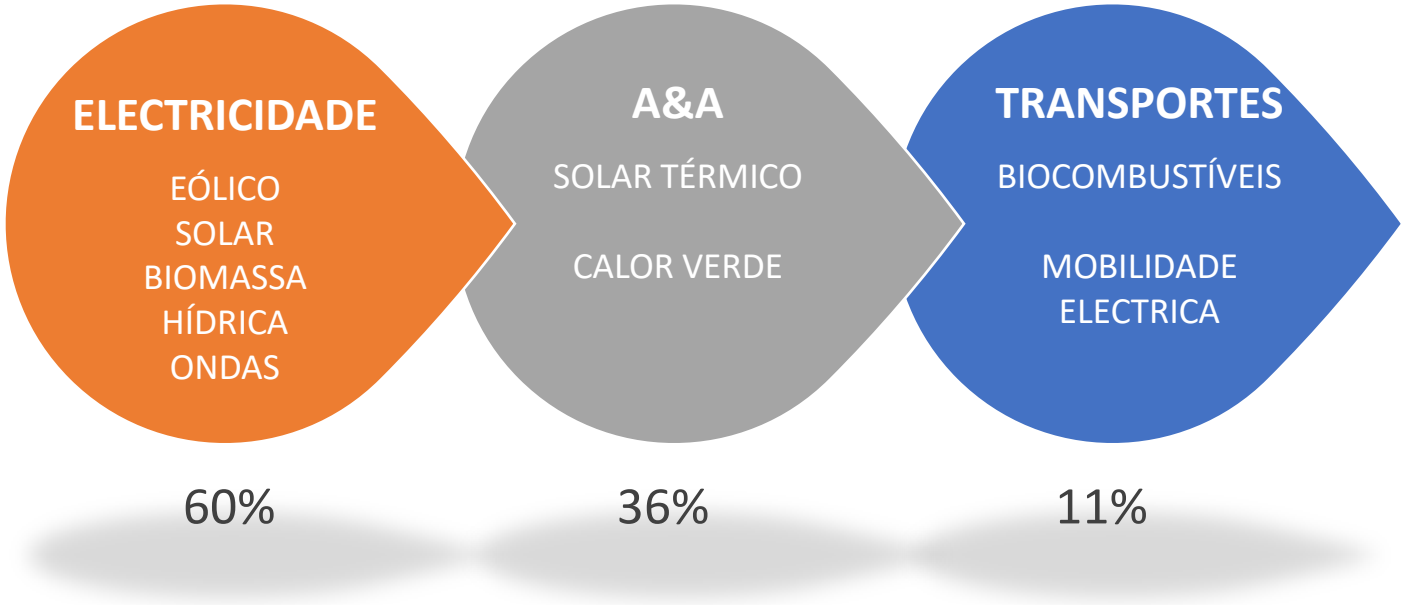
1,5 Mtep poupança

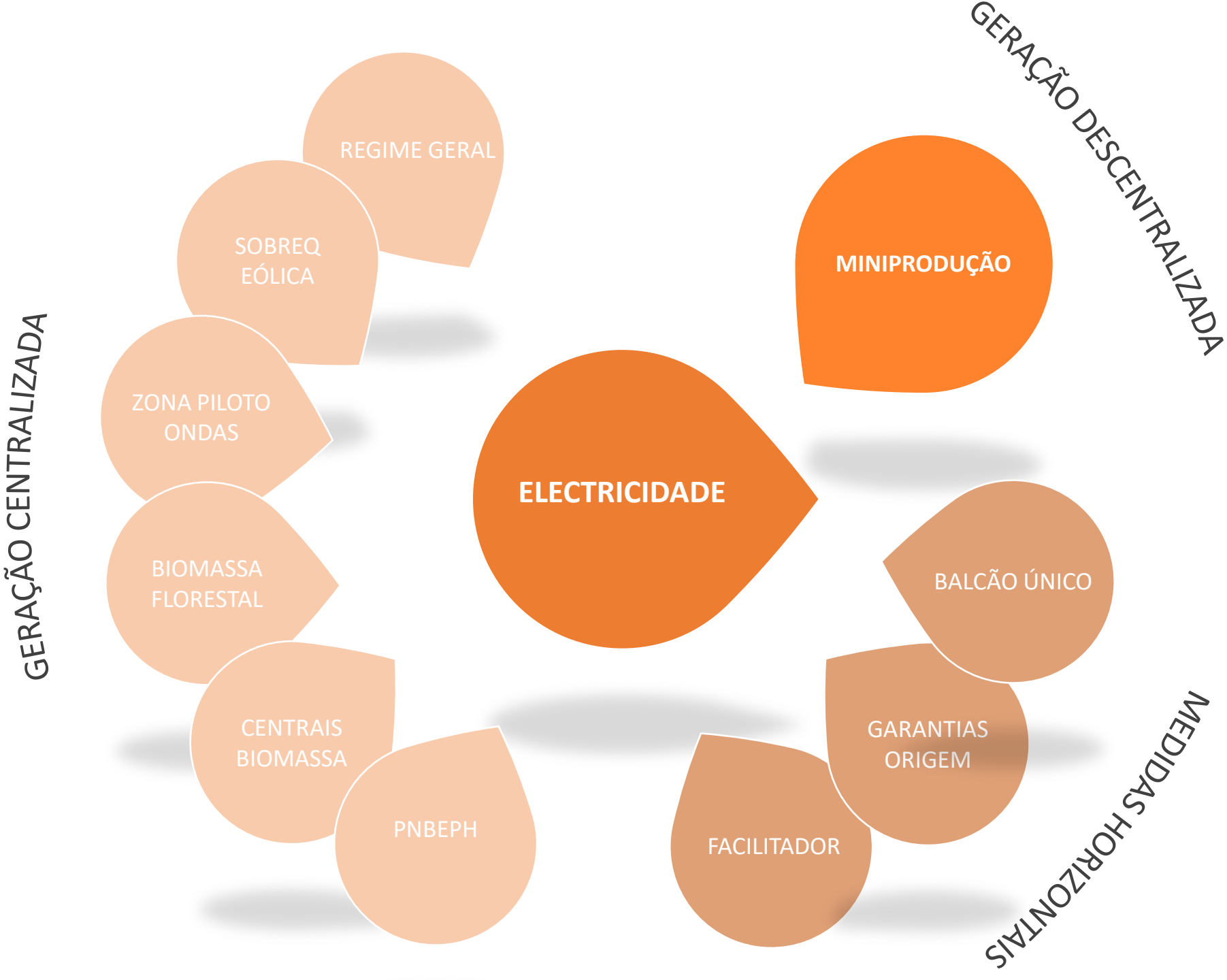

EDIFÍCIOS
RESIDENCIAIS
SERVIÇOS
INDÚSTRIA
500 tep/ano
TRANSPORTES
TERRESTRES
ESTADO
EDIFÍCIOS
TRANSPORTES
AGRICULTURA
AGROINDÚSTRIA
SISTEMAS REGA
COMPORTAMENTOS
CASA
ESCRITÓRIO
42%
24%
23%
7%
2%
1%

PNAER plano nacional de ação para as energias renováveis

2013-2020

34,5% ER no consumo bruto de energia final

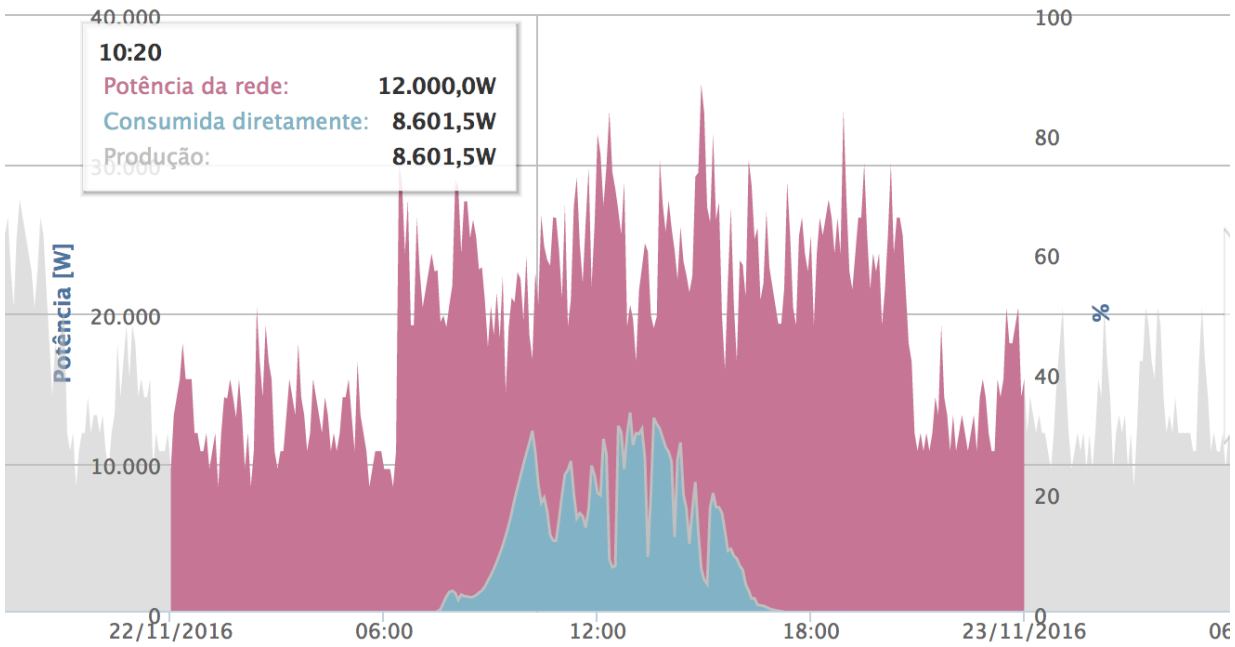

ELECTRICIDADE
EÓLICO
SOLAR
BIOMASSA
HÍDRICA
ONDAS
A&A
SOLAR TÉRMICO
CALOR VERDE
TRANSPORTES
BIOCOMBUSTÍVEIS
MOBILIDADE ELECTRICA
60%
36%
11%

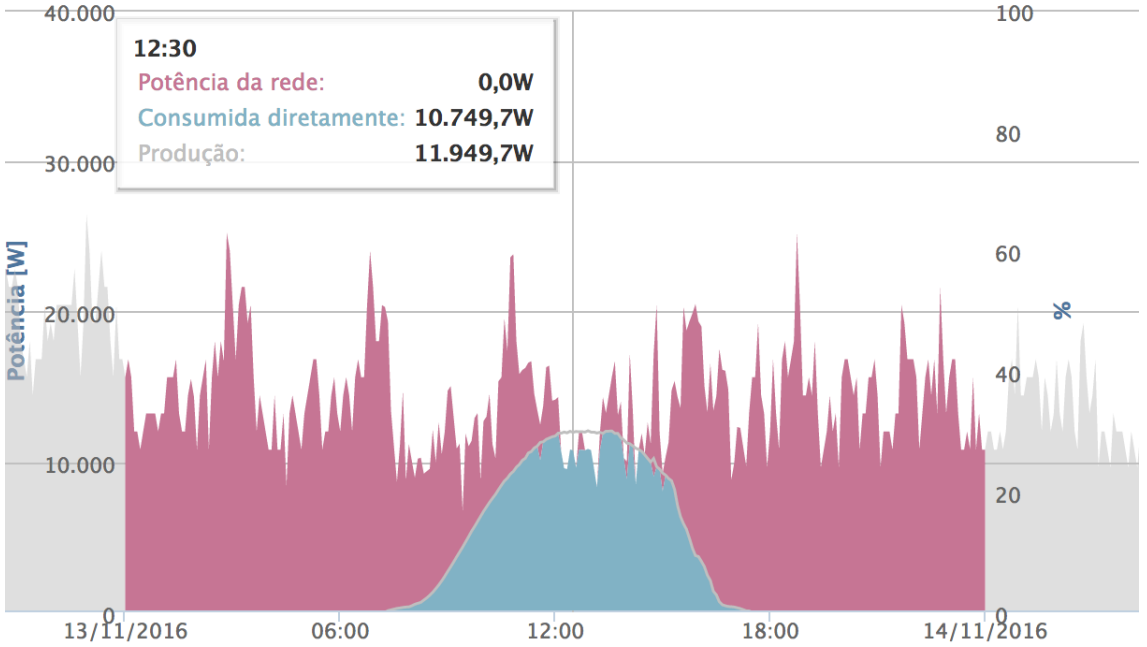

GERAÇÃO CENTRALIZADA
REGIME GERAL
SOBREQ EÓLICA
ZONA PILOTO ONDAS
BIOMASSA FLORESTAL
CENTRAIS BIOMASSA
PNBEPH
GERAÇÃO DESCENTRALIZADA
MINIPRODUÇÃO
ELECTRICIDADE
BALCÃO ÚNICO
GARANTIAS ORIGEM
FACILITADOR
MEDIDAS HORIZONTAIS

as energias renováveis e o desafio do autoconsumo

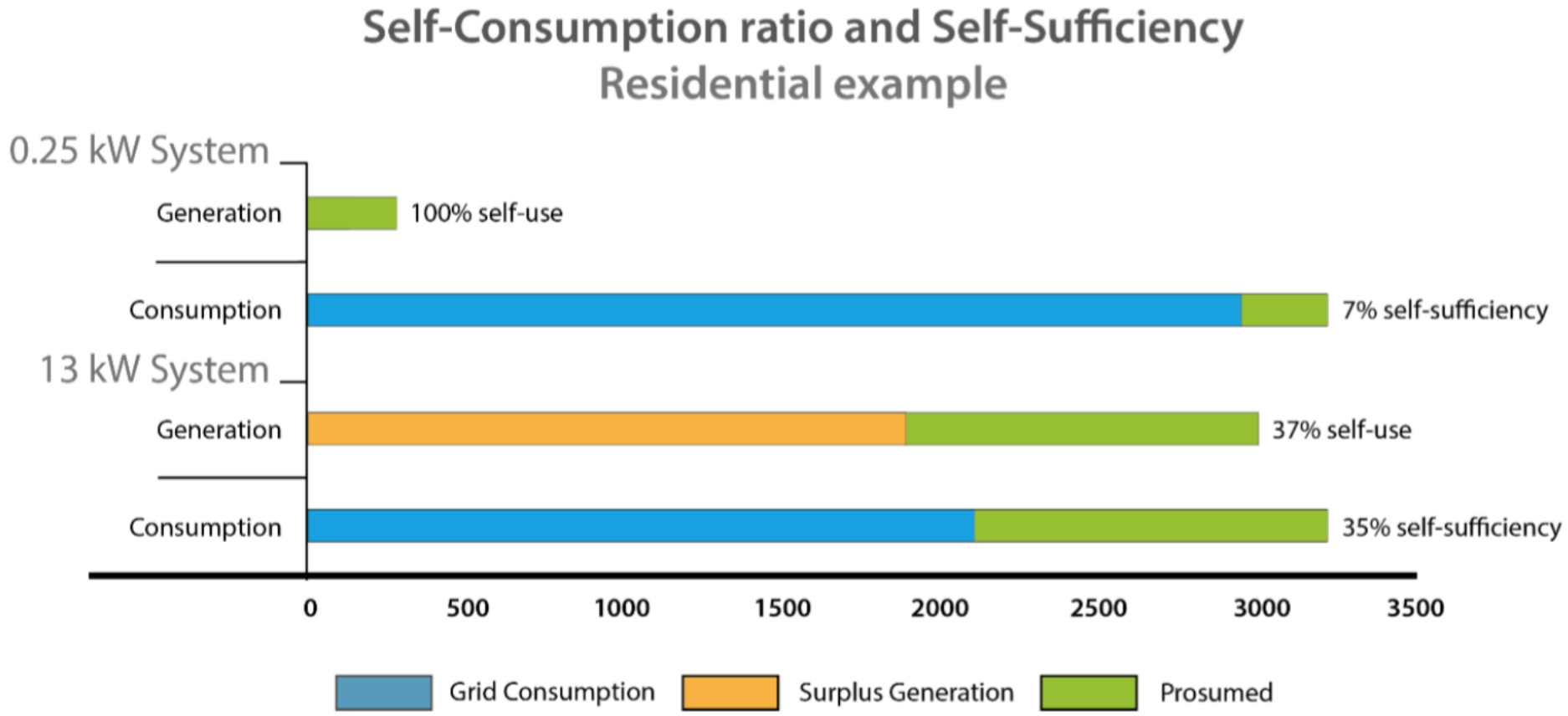
Self-consumption is a regulatory mechanism by which one or more electricity consumers are allowed to generate their own energy to partially or entirely cover their electricity needs. This installation may be connected to the public electricity grid for energy consumption or exporting excessive production

RICARDO MOURA, 2016


10:20
Potência da rede: 12.000,0W
Consumida diretamente: 8.601,5W
Produção: 8.601,5W
Potência [W]
%
40.000
30.000
20.000
10.000
0
100
80
60
40
20
0
22/11/2016
06:00
12:00
18:00
23/11/2016


12:30
Potência da rede: 0,0W
Consumida diretamente: 10.749,7W
Produção: 11.949,7W
Potência [W]
%
40.000
30.000
20.000
10.000
0
100
80
60
40
20
0
13/11/2016
06:00
12:00
18:00
14/11/2016


CAPACIDADE
POTÊNCIA INSTALADA
EXPORTAÇÃO
90% PREÇO MÉDIO DE FECHO MENSAL MERCADO SPOT
COMPENSAÇÃO
% CUSTOS CIEG



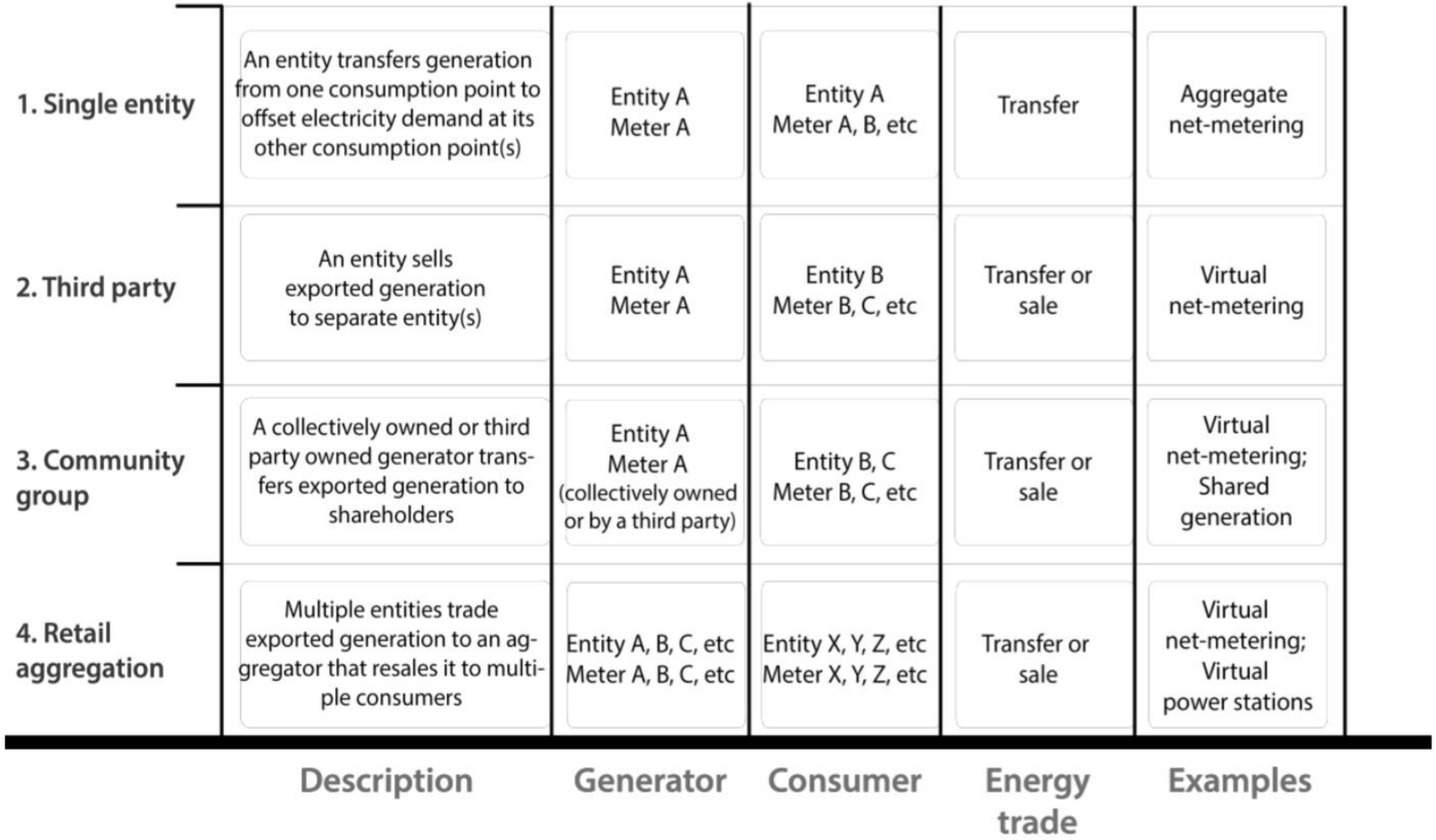
RICARDO MOURA, 2016

agregação de consumidores para maximização de valor

BENEFITS
OF PROSUMER AGGREGATION POLICY

RICARDO MOURA, 2016

Virtual Metering Typologies
categorizing different configurations



RICARDO MOURA, 2016

OBRIGADA PELA ATENÇÃO!

maria.rodrigues@green-egg.pt