CLEAN ENERGY SOLUTIONS CENTER
ASSISTING COUNTRIES WITH CLEAN ENERGY POLICY

Policies to strength the role of citizens in the energy transition

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Overview of CESC Experts

Factor
Ideas for change

BU

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Citizens participation in large scale renewable energy deployment

"Citizen participation" has different meanings to different people.

In this webinar we explore 10 roles for of citizen participation in large scale renewable energy deployment.

We loosely characterize these roles as "reactive" and "proactive"

Citizens participation in large scale renewable energy deployment

Reactive Roles

- NIMBY / BANANA
- Public Consultation
- Benefit Sharing
- Jobs & Labor
- Human Rights

Proactive Roles

- Consumers
- Prosumers
- Investors
- Community Driven Projects
- Advocates

Reactive Roles

- NIMBY / BANANA
- Public Consultation
- Benefit Sharing
- Jobs & Labor
- Human Rights

NIMBY / BANANA

NIMBY: **N**ot **I**n **M**y **B**ack **Y**ard

BANANA:

Public Consultation

- National regulation for major (energy) projects
- Guidelines for “Free, prior and informed consent” (FPIC) can be used in managing renewable energy, particularly in large-scale projects
- Consultation should look into:
  - **Representation**. Clear understanding of who can represent/ make a decision for a community
  - Institutions, **procedures** and instances of decision making are respected and taken into account
  - Limited **time frames** usually lead to uninformed or non-consensual decisions about any future project
  - **Flexibility**. the process should remain flexible during its entire duration.

Benefit sharing

- Sharing the benefits of a project can **enhance** the social and economic **outcomes for the local community** (as well as the long term viability of the project)
- Tailored to the local context — hosts, neighbors and the broader community
- Benefit sharing includes :
  - Local jobs and procurement
  - Energy efficiency programs
  - Infrastructure (schools, hospitals)
  - Services (electricity)
  - Beyond compliance in mitigating impacts
  - Employee volunteerism

Benefit sharing: Local Taxation

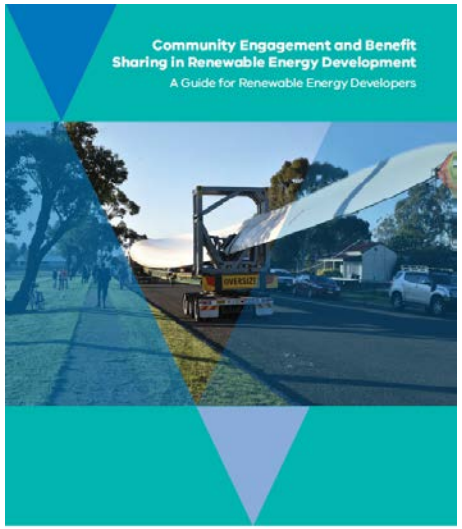
- The most direct method of benefit sharing is through local taxation (e.g. Spain 1,3% of the asset value). Can be number based on capacity, output or number of turbines
- Main drawback of local taxation is that in many municipalities, a disconnect may exist between the communities that are affected by the renewable energy project to be taxed and the decision makers who are deciding how to allocate the revenue collected
- Local taxation is largely contingent on the regulatory framework of each jurisdiction, and often is not possible or severely constrained (e.g. Juchitán Mexico)
- Reduces competitiveness of the location

Benefit sharing: policy mandates

- Ecuador, as part of the country's previous **feed-in tariff**, renewable energy projects receiving the tariff had to contribute an amount (per kilowatthour) to social and community development projects
- El Salvador, for example, the 2014 **auction** for 100 MW of solar and wind power required that developers invest 3% of revenue in social projects in the adjacent communities. The project is operating since March 2017, 3% goes to the social investment for development Fund

Benefit sharing: policy mandates

- In Victoria (Australia) applicants to auction will be assessed against community engagement and benefit sharing criteria. Bidders are required to provide:
  - Social Risk Analysis
  - Community Engagement Strategy
  - Benefit Sharing Program
  - Reporting, Monitoring and Evaluation Plan
  - Letters of Support



Benefit sharing: voluntary funds or foundations

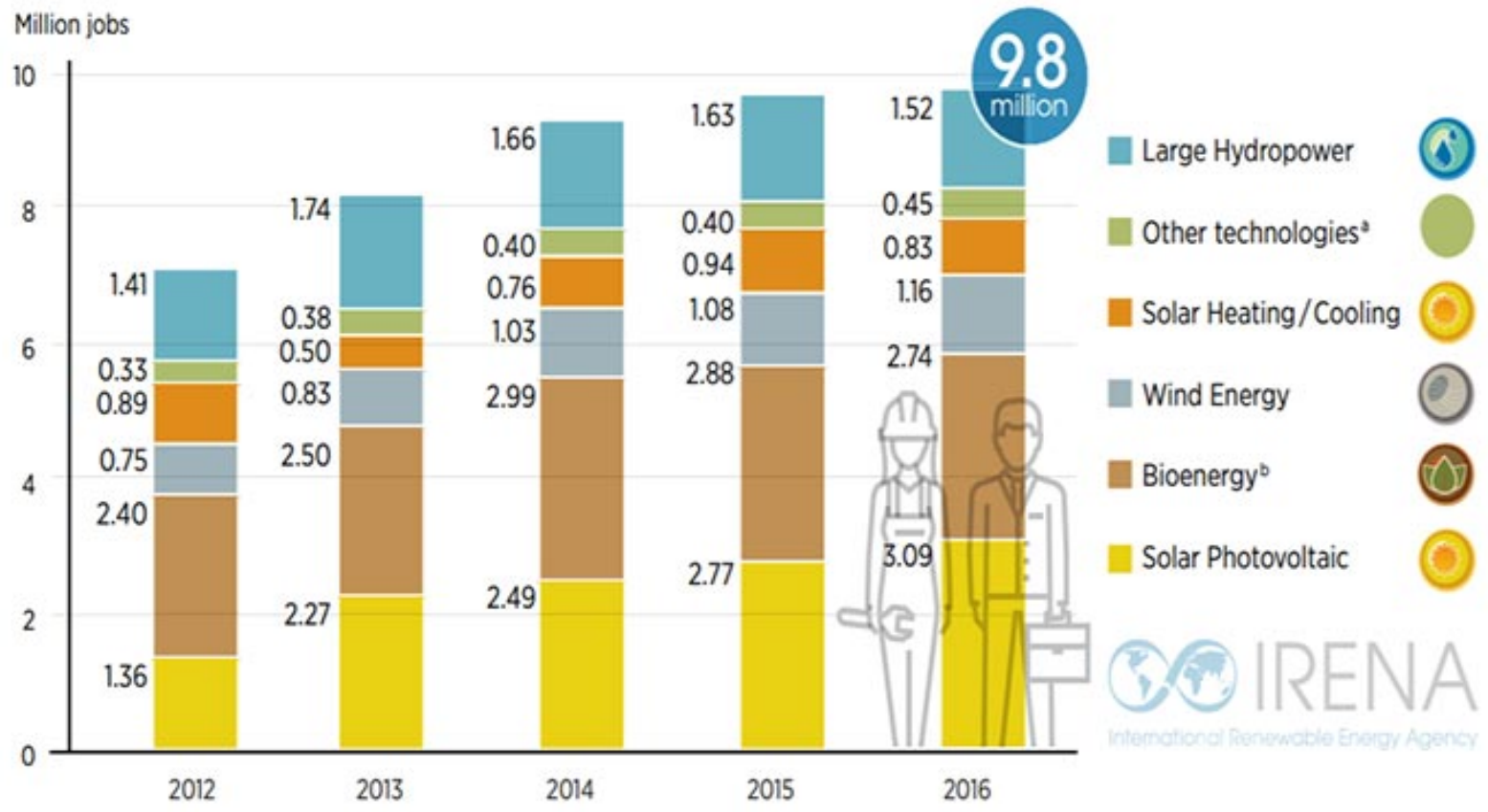
- Renewable energy projects also can engage in benefit sharing through dedicated funds or foundations
- El Salvador, LaGeo's Berlin and Ahuachapan geothermal plants have funded activities in the community for over a decade, through the foundation FundaGeo
- Each year, the neighbouring communities (7), which encompass nearly 15,000 inhabitants, present proposals for local development projects
- Community associations that include assembly-elected representatives from the communities then vote on the proposals and decide which ones to implement

Benefit sharing: voluntary funds or foundations

- The categories of the projects are:
  - Training and education
  - Health and environment
  - Productive development
  - Basic social infrastructure

FundaGeo
Una oportunidad para un mejor mañana

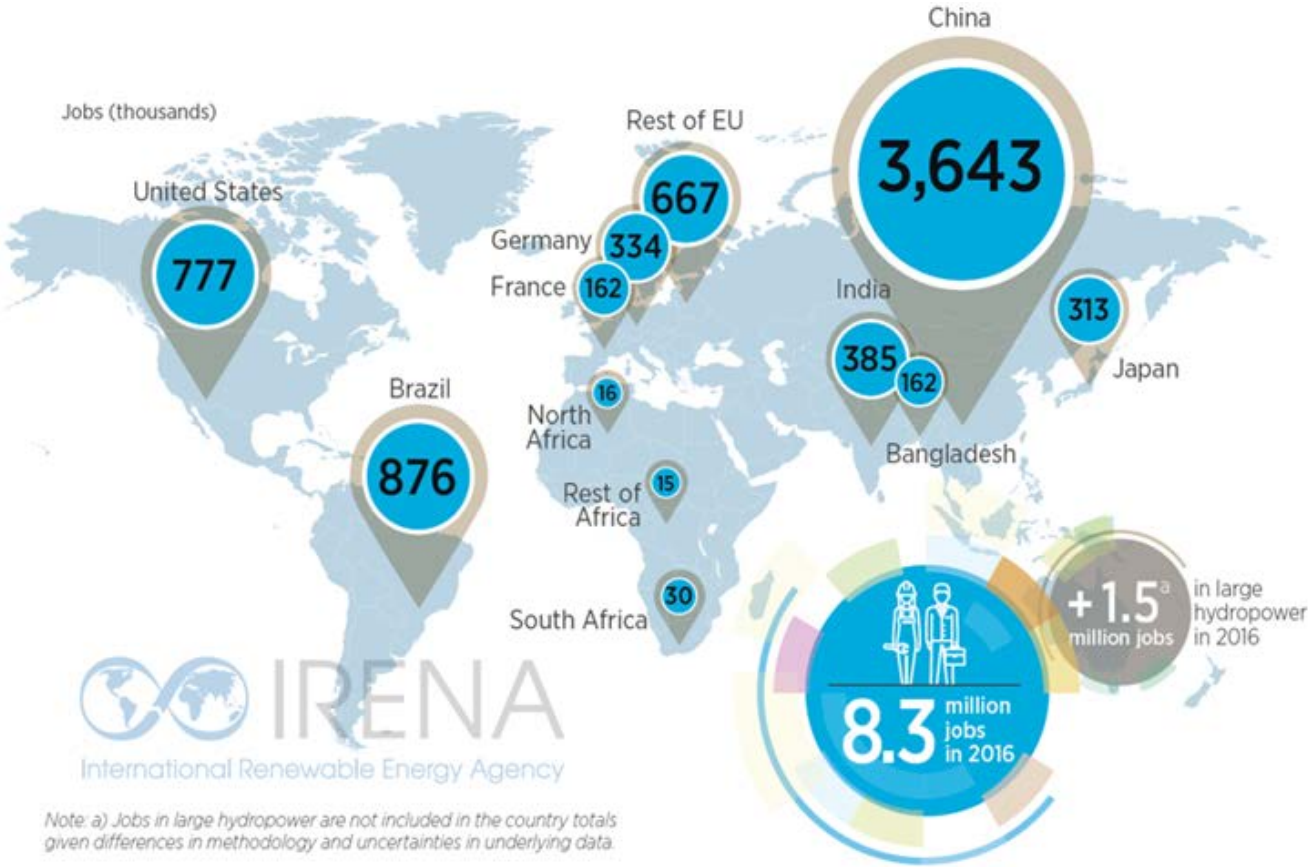
Renewables and Job creation



Note: a) Includes geothermal energy, hydropower (small), concentrated solar power (CSP), municipal and industrial waste, ocean energy and miscellaneous
b) Includes liquid biofuels, solid biomass and biogas

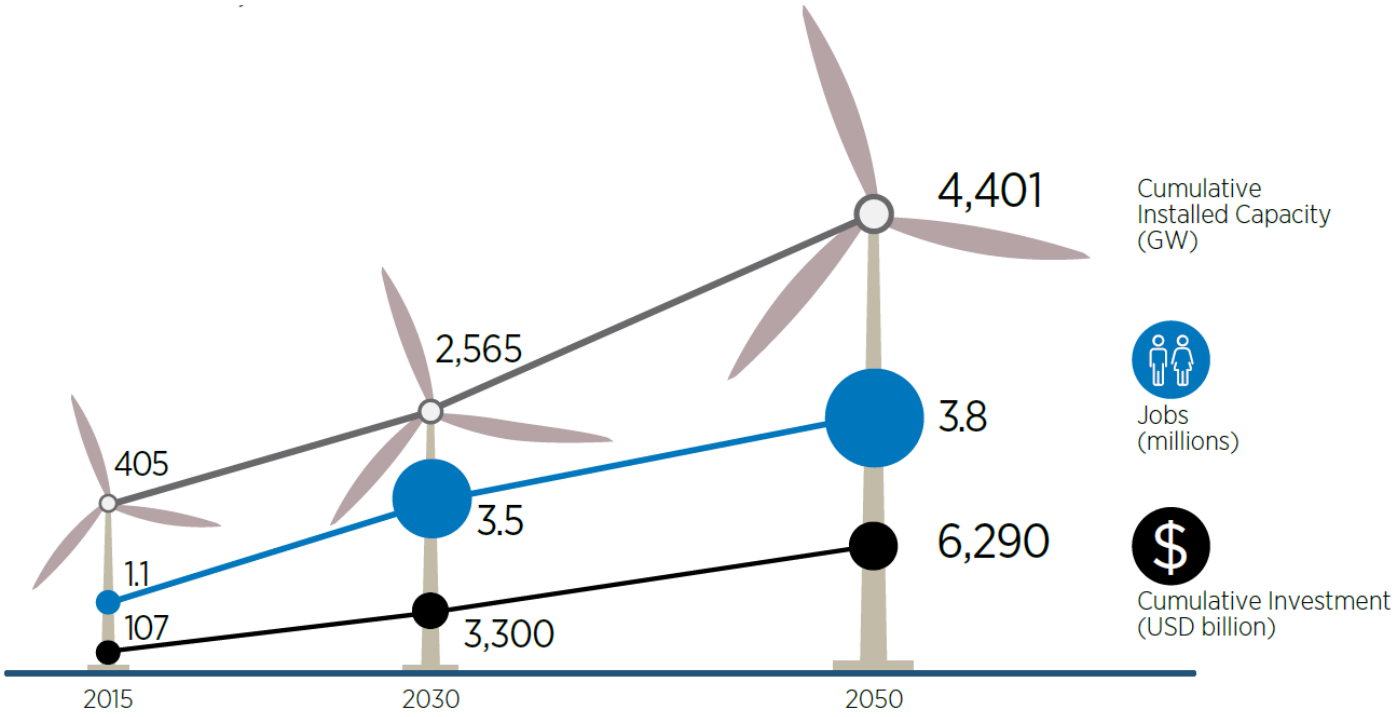
Source : IRENA

Renewables and Job creation



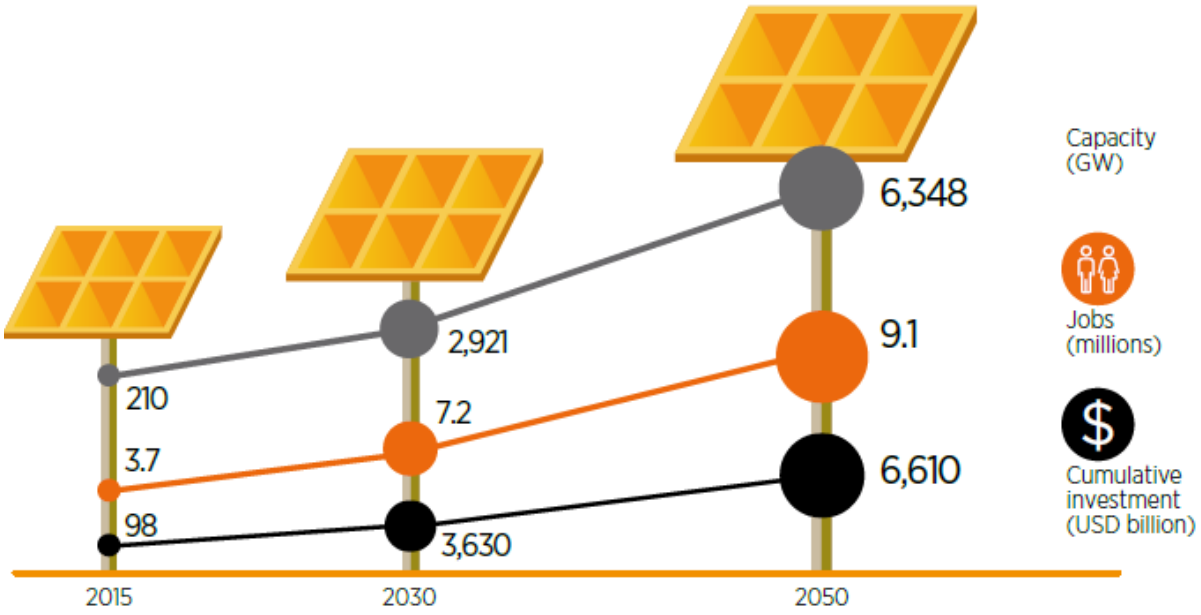
Source : IRENA

Job creation: windpower



Source : IRENA

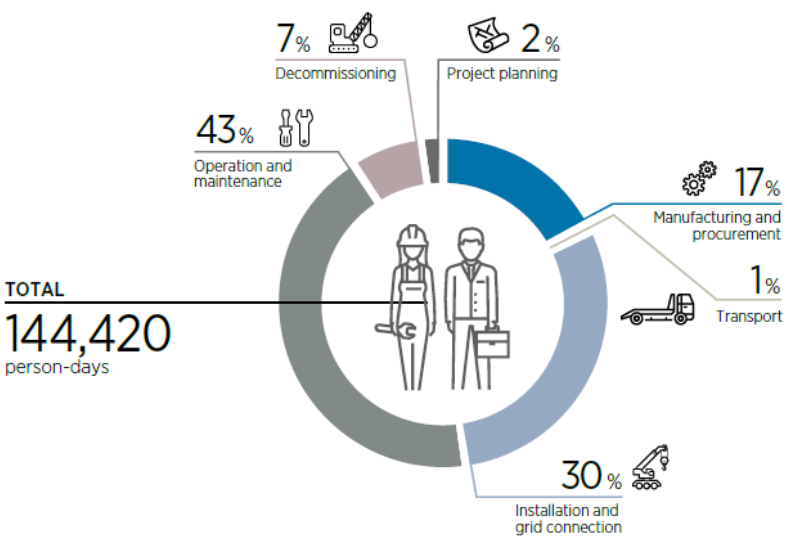
Job creation: solar PV

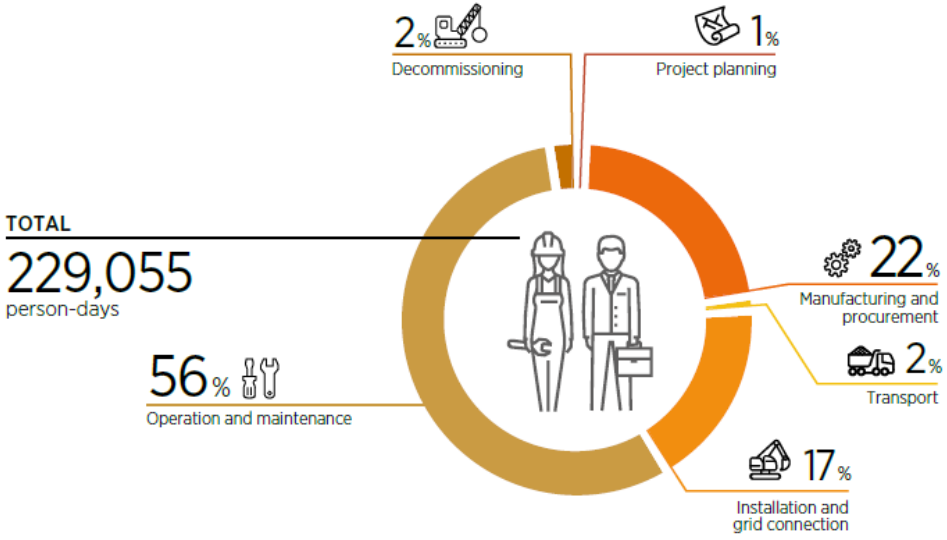


Source : IRENA

Job creation

- Human resources required for a 50 MW project: solar PV and wind





Source : IRENA

Human Rights

Human rights is an area of that requires further attention by the renewable energy sector.

According to the Business & Human Rights Resource Centre, currently the majority of renewable energy companies fail the minimum tests on human rights

Human Rights

Over 100 Human rights abuse allegations against renewable energy projects documented by the Business & Human Rights Resource Centre include:

- killings and violence against human rights defenders
- displacement of local communities without adequate consultation or compensation
- harms to the rights of indigenous peoples
- abuse of workers' rights.

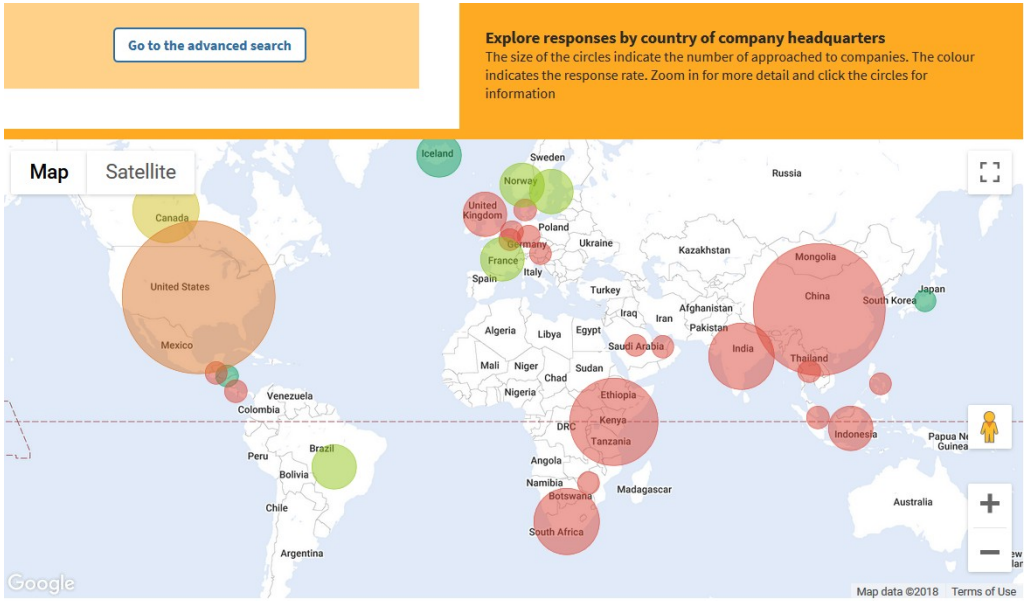
The renewables sector is among the sectors most frequently linked to attacks on human rights defenders, along with mining and agribusiness

Business & Human Rights Resource Centre

Human Rights

Business & Human Rights Resource Centre analyzed 59 solar, bioenergy and geothermal companies' human rights policies and practices on five key areas:

- human rights commitment
- community consultations
- grievance mechanisms
- labor rights
- supply chain monitoring.



Business & Human Rights Resource Centre

Human Rights

- Just 5 out of 59 major solar, bioenergy and geothermal companies meet four basic criteria to protect communities and workers in their projects.
- Almost half appear to have no basic protections in place

Business & Human Rights Resource Centre

Proactive Roles

New Roles for Citizens:

- 22% of German household consume 100% renewable electricity
- 50% of renewable Energy investments in Germany are made by individual citizens
- Renewable energy crowdfunding has been demonstrated by platforms such as *Mosaic* and *Abundance,* collecting $ 8 million and $ 10 million respectively.

Proactive Roles

Proactive roles include citizens as:

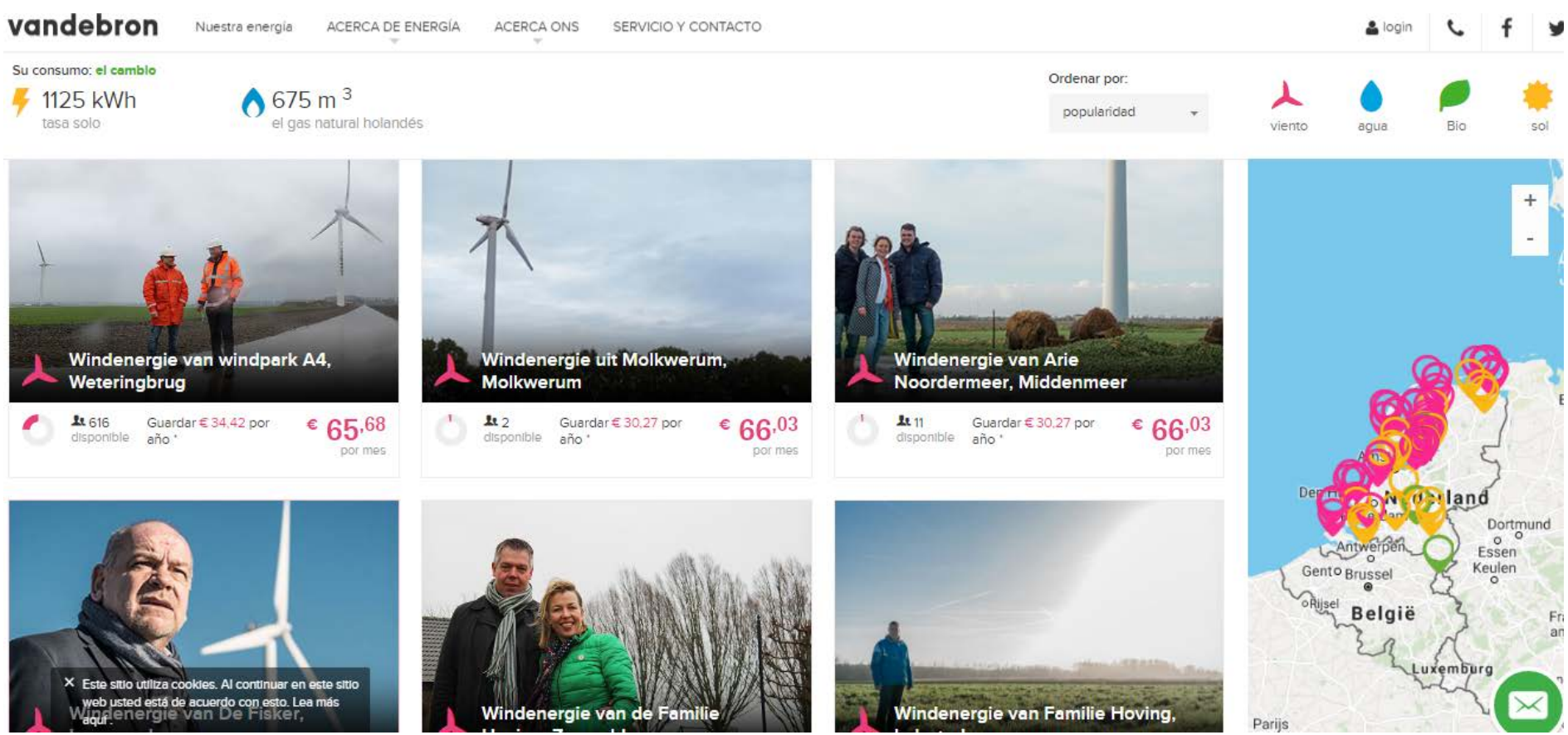
- Consumers
- Prosumers
- Investors
- Community Driven Projects
- Advocates

Consumers

Citizens role as consumers is many fold, including:

- Individual choice
- Community Choice Aggregation

Community Power



Community choice aggregation

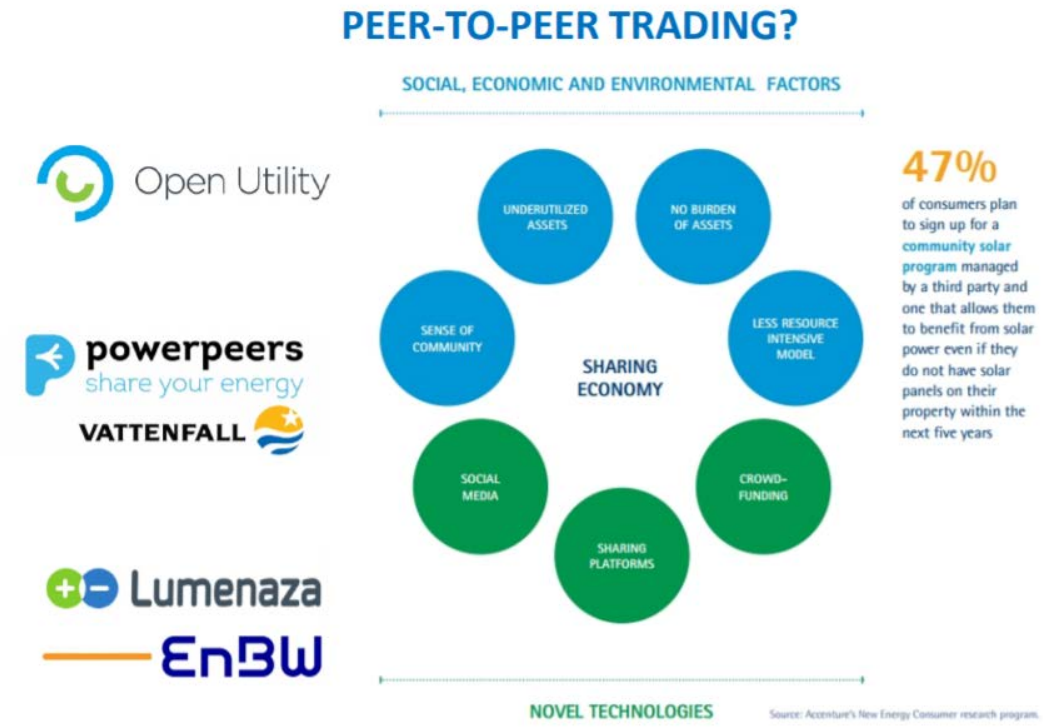
In August 2017, the Town of Arlington joined 60 Massachusetts communities and rolled out Arlington Community Choice Aggregation (Arlington CCA). Arlington CCA uses bulk purchasing to offer competitive electricity pricing and rate stability for consumers. The program also offers three levels of renewable energy options to consumers to reduce reliance on carbon-producing fossil fuels.

Arlington Basic	Arlington 5% Green (default)	Arlington 50% Green	Arlington 100% Green
Same as regular utility	17% renewable energy (5% more than state mandate)	50% renewable energy	100% renewable energy

Prosumers: Solar Rooftops

- Net metering
- Third-party business models

Prosumers: New business models



Communities and citizens as Investors

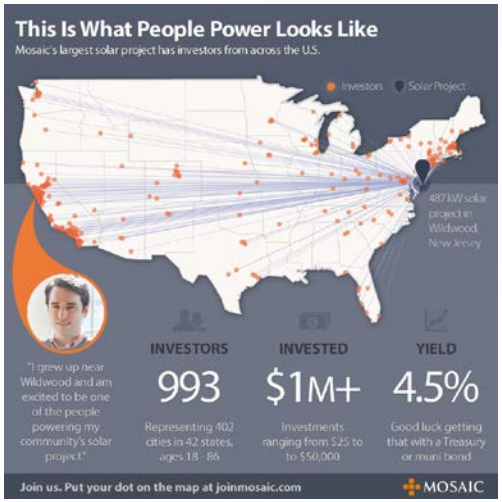
- There are two main models for equity sharing: equity partnership and subscription
- An equity partnership is a proposed model where communities and investors partner for a renewable energy project. Investors contribute capital, and the community contributes land, rights and social support. In lieu of rent for the land and community payments, the community gets a share in the equity of the project.

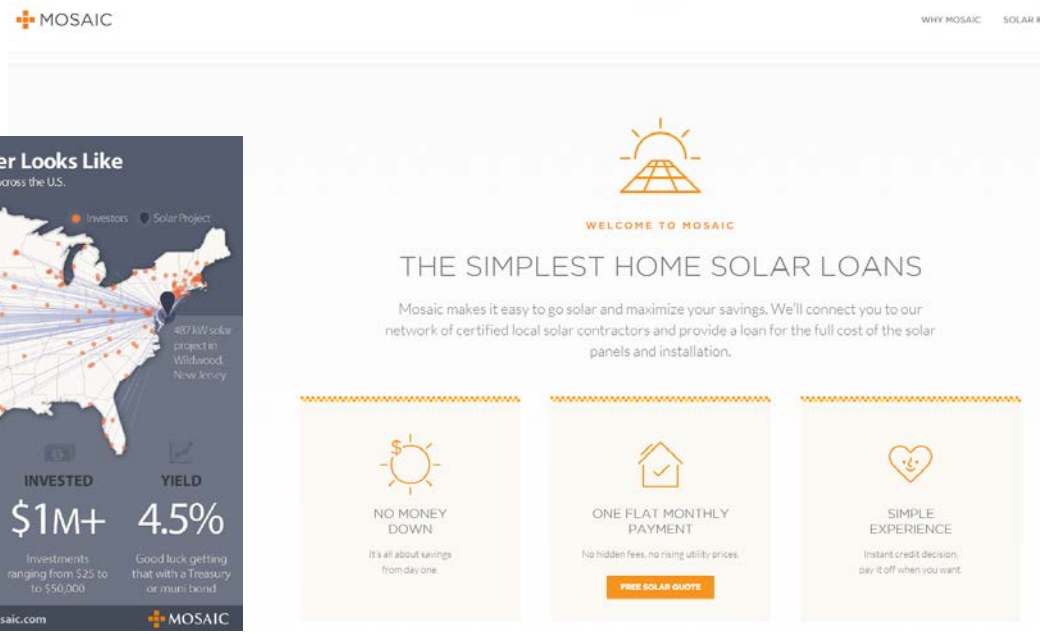
Communities and citizens as Investors

- Under a subscription model, developers open a portion of the project's equity to subscription by individuals or communities. The subscription approach generally allows for participation in the benefits (and risks) of the project, but less in the decision-making
- An example the public utility UTE in Uruguay for wind projects of Arias (70 MW), Pampa (147.5 MW) and Valentines (70 MW). 80% of the equity was reserved for small investors from USD 100 to USD 2,000
- Subscription schemes can have undesired effects when implemented in economies with highly unequal distribution of wealth. In such cases, subscription could reinforce existing social inequities and increase the rejection by persons who have no funds to invest

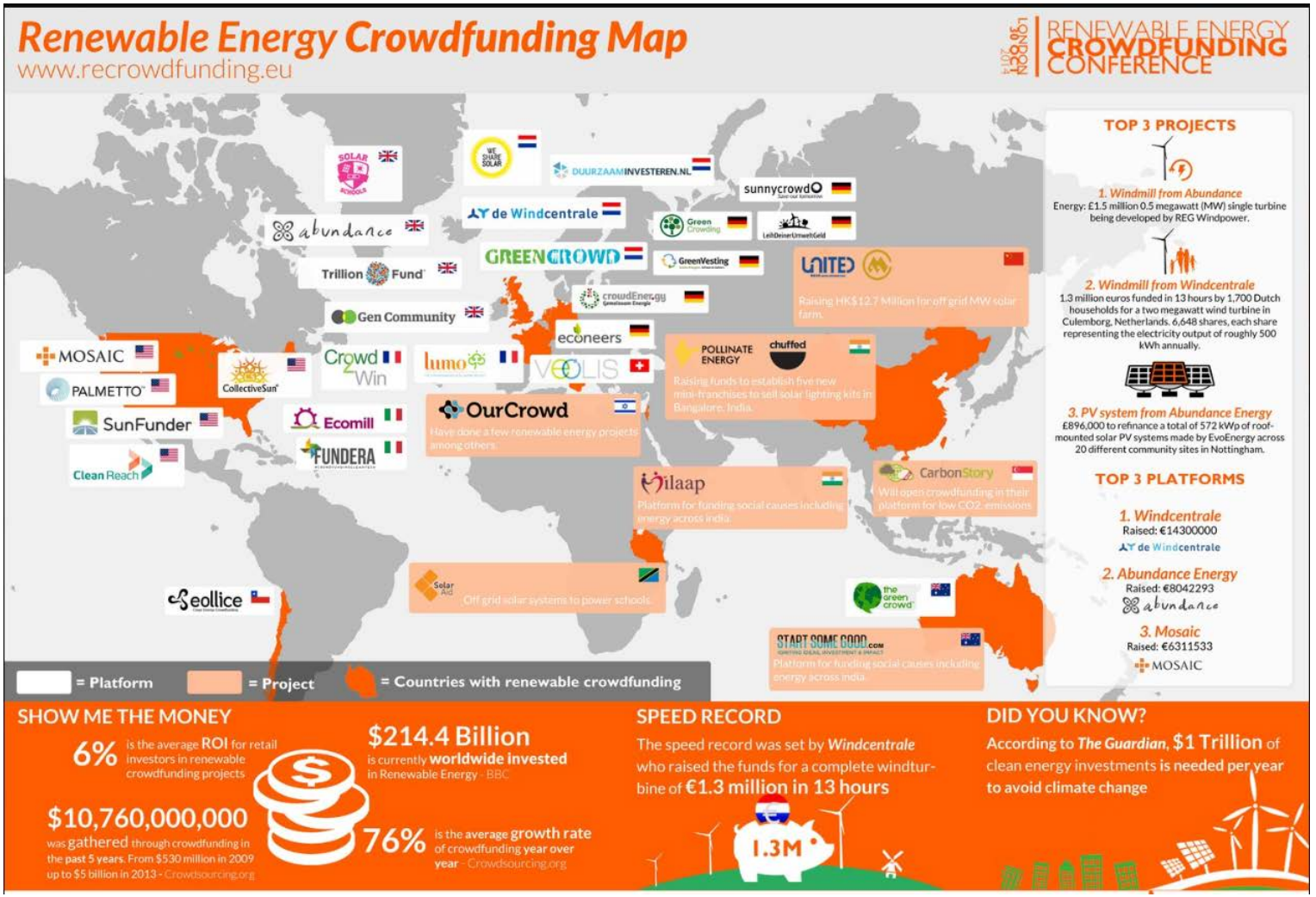
Communities and citizens as Investors

- Citizens investing in their neighbor's rooftop





Communities and citizens as Investors



Community driven projects

Community energy is any combination of at least two of the following elements:

- Local stakeholders own the majority or all of a renewable energy project
- Voting control rests with a community-based organisation
- The majority of social and economic benefits are distributed locally

COMMUNITY ENERGY:

BROADENING THE OWNERSHIP
OF RENEWABLES

Community Power

EOLPOP
viure de l'aire

¡Ya te puedes preinscribir para participar en el proyecto!

Inicio

EL PROYECTO

El aerogenerador de todos.

RATO DE PARTICIPACIÓN EN EL PROYECTO VIVIR DEL AIRE DE

En Barcelona, el _____ de _____ de 2017

De una parte,

EOLPOP, S.L. (**PARTÍCIPE-GESTOR** o **GESTOR**), con domicilio en la calle Camprodón, número 3 bajo, 08012 de Barcelona, constituida por tiempo indefinido el día 28 de octubre de 2009, con escrituras públicas otorgadas ante el Notario de Barcelona, José Bauzá Corchs, con los números 1899 y 2279 de su protocolo, inscritas en el Registro Mercantil de Barcelona, tomo 41638, folio 11 hoja B391556, inscripción 1. NIF B65199705.

(**CUENTA-PARTÍCIPE**), con dom

Benefits of community driven projects

- Employment and income impact ten-fold additional employment and income impact compared with non-community-driven projects
- Increase social acceptance
- Increased economic resilience of community members through diversified sources of income
- Creating a common identity, as well increased feeling of self-worth among people involved

Benefits of community driven projects

- **Increased transparency** in planning and construction
- Broader **distribution of assets and influence** within the energy system
- An opportunity for **indigenous people**
- Local energy needs are more likely to be met
- Increased pool of funders: local ownership increases the number of people and available funds for investment
- Volunteerism and free exchange of knowledge

Cooperatives

- Over 3000 Energy cooperatives active in in Europe alone in 2016
- In USA over 2000 public electric cooperatives provide service to over 48 million people.
- Estimated 60 to 65 renewable energy cooperatives in Canada
- In 2015 19 community driven Projects were operative in Australia.
- Over 200 community driven projects existen in Japan in 2016

Cooperatives

RESCOOP.EU
FEDERATION OF GROUPS AND COOPERATIVES OF CITIZENS FOR RENEWABLE ENERGY IN EUROPE

Languages
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The energy transition to energy democracy

REScoop 20-20-20 was an initiative launched by the 'Federation of groups and cooperatives of citizens for renewable energy in Europe' with the support of the Intelligent Energy Europe Program (European Commission). Twelve organisations in seven countries have joined forces to increase the number of successful Community Power Initiatives (CPI's)

Events

EU Sustainable Energy Week
Mon, 15/06/2015 - 08:45

Community energy across Europe: opportunities and challenges
Wed, 17/06/2015 - 09:30
Brussels

EUSEW Innovative partnerships between local authorities and citizens for energy efficiency investments
Thu, 18/06/2015 - 09:00
Brussels

See all events

Renewable energy tenders lock out community power

- Incertitude in timeline and result
- High financial guarantees
- Degree of development of the projects
- Technical and financial reputation
- Administrative burden
- Access to finance

Renewable energy tenders lock out community power

- Access to human resources
- Dominant position in regions with best resources (land, data, connection)
- Penalizes Benefit Sharing
- …

Proposal RE Tenders and Community [Em]power[ment]

1 Ambitious Medium and Long Term Community Power **Targets**

2. **Accession Process:**

- a) A volume will not be awarded in the auction and will be for CDREP
- b) Open window to access PPAs for CDREP in first come first take bases
- c) Price related with the result of the auction (e.g. average lowest rejected)

- 3. Community Power **Authority**

Citizens as Advocates

- Institutional Agency: drives change at different levels:
  - Municipality (e.g. community aggregation)
  - Workplace
  - Organizations (e.g. corporate procurement)
- Awareness raising
- Education
  - Education and measures to raise awareness of the general public on sustainability issues in general and renewable energies and their benefits in particular, create the political demand and the public support for the energy transition. An example for this is the German Energy Transition (Energiewende).

THANK YOU

QUESTIONS?