Energy Sector Transformation Dialogue

Distributed energy policy in Costa Rica

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Ministry of Environment and Energy
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History of Energy in CR

1883
Creation of CR Electric Company

1899
Creation of The Costa Rican Electric Light and Traction Company

1884
Opening of the electric service

1924
Creation of the National Civil League

1928
Bill for the nationalization of CR hydropower sources

1948
“General Plan for the Electrification of CR” is presented to the National Bank

1949
Creation of the Costa Rican Electricity Institute (ICE)

ICE: sole provider of electricity in Costa Rica (government monopoly)
## National Electric System

### Generation

ICE is the sole buyer of all the electric power.

In 1995, was authorized by law the private generation of electricity (up to 30% of CR generation system capacity).

### Transmission

The electric power transmission network is owned, operated and developed only by ICE.

### Distribution

Carried by 8 companies:
- 2 Government companies.
- 2 Local government companies.
- 4 Cooperatives.

Access to electricity 2014: **99.43%**
Energy Mix 2015 -Electricity generation- January – July

145 days*
100% renewable

*Represents the sum of all the days on which the energy mix has been 100% renewable, throughout 2015.
What is distributed energy in Costa Rica?

- Costa Rica’s vision is to develop distributed energy for self-consumption only, using renewable energy sources.

- Allows the customers of the different distribution companies, to install an on-site renewable energy system and seize the opportunity to use their own infrastructure.

- The tariff method for distributed energy in Costa Rica is “net metering”. There are two types: no excess compensation and excess compensation.
# Net metering in Costa Rica

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<thead>
<tr>
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**Net metering** is a system where the electricity generated by a renewable energy resource is consumed on-site, and any excess electricity is fed back to the grid. In Costa Rica, there are two types of net metering:

1. **No excess compensation**
   - Not a public service.
   - The excess of electricity (after consumption) is fed back to the grid, but there is no payment for it at the end of the month/year.
   - **Access tariff**: for consumption and feedback of electricity to the grid.
   - Regulation to be implemented by September 2015.

2. **Excess compensation**
   - Needs a public service concession to operate.
   - The excess of electricity (after consumption) is fed back to the grid, with a payment for it at the end of the month/year.
   - **Access tariff**: for consumption and feedback of electricity to the grid.
Why promoting distributed energy in Costa Rica?

To lower the electricity billing of energy consumers

As an alternative method that also uses renewable resources according to our energetic development model

To lower the load curve in periods of higher electricity demand.

Other way to create awareness of energy efficiency

As an effort to accomplish Costa Rica’s goal of becoming carbon neutral by 2021.
How does Costa Rica promotes distributed energy?

VII National Energy Policy Plan, is the main tool of the government defined by law, to establish its energy policy vision, in which distributed energy, is one of its main objectives.

Distributed Energy Regulation, mandatory for everyone who pretends to implement distributed energy and for the distribution companies that provides the service.
What actions is Costa Rica undertaking to secure its distribution network?

- Ensure that the energy power distribution to the consumers is not affected by this activity.
- Technical studies to establish the distribution network capacity for each distribution company.
- The quantity of users in distributed generation activity, will be limited by the network’s own capacity.
- The distribution company is not obliged to increase its network capacity to connect more users for this activity.
- The installed system, has to be design for the energy consumption of the user.
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