

# Exercise 4: Data Audit

**IRENA Renewable Energy Statistics Training**

## **Conduct a data audit to identify reporting gaps**

Make an assessment of existing data collection activities:

- Identify all potential data providers including: government agencies, utilities, donors, NGOs, academic institutions etc. that may be involved in data collection
- Conduct an audit to see what data is already being collected
- Identify remaining data gaps

# 1. Define data needs

## Identify the scope of activities to monitor:

Define activities that should be tracked based on national context and priorities, for example:

- A renewable energy target
- A national energy plan or policy
- Renewable energy investments and projects
- Energy access? Energy security?
- Affordability? Long-term energy supply?

# 1. Define data needs

Relevant data collection efforts could include:

- Electricity capacity and generation (grid-connected and off-grid)
- Small-scale systems in specific areas (e.g. desalination, water pumps etc.)
- Social, economic, environmental impacts (e.g. jobs, emissions, trade balance etc.)
- Full energy balance (supply, transformation, consumption by end-uses)

## 2. Data audit

### Assess existing data and identify gaps

Assess existing data collection activities:

- Identify all organisations that may already be collecting data, such as: government agencies; utilities; industry associations
- See what data is already being collected and identify remaining data gaps

## 2. Data audit

### *Simplified example of an assessment*

Flow	Electricity (on grid)	Electricity (off grid)	Solar thermal	Bioenergy
<b>Production</b>	electricity company, regulator, IPPs, industry associations	household surveys, retail surveys, IPPs	household surveys, retail surveys, planning authorities	household surveys, retail surveys, agricultural surveys
<b>Trade</b>	network operator	customs administration (equipment and biofuels)		
<b>Supply</b>	<b>Calculated</b>			
<b>Transformation</b>	electricity company, IPPs, industry associations	IPPs	electricity company, IPPs	wood and food processing enterprises
<b>Losses</b>	network operator, distribution company	IPPs		
<b>Consumption</b>	<b>Calculated</b>			
<b>Industry</b>	distribution company	enterprise surveys		
<b>Households</b>		household surveys, market surveys		
<b>Services</b>		enterprise surveys		
<b>Other</b>		enterprise surveys	agricultural surveys	

### 3. Develop reporting tools

## Develop templates reflecting the national data collection priorities:

- Use internationally agreed definitions, boundaries and units for energy statistics
- Use standard templates for reporting that cover major priorities in sufficient detail





# Discussion questions

## 3. What are the data gaps?

# Discussion questions

## 4. What are the main challenges:

- Institutional capacities, co-ordination, etc.?
- Technical issues?