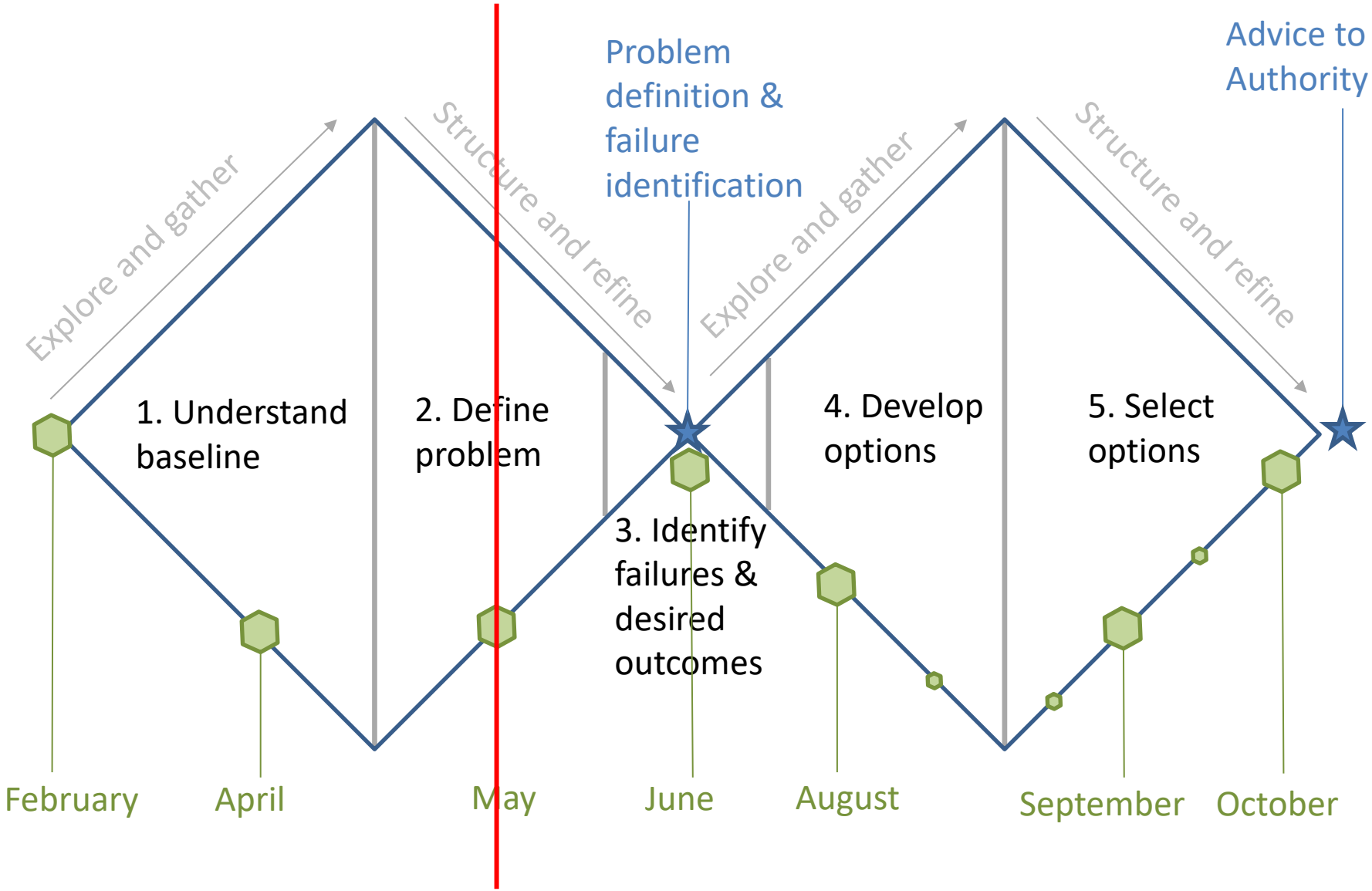
7 May 2019

Input services – workshop – future service providers

Innovation and Participation Advisory Group

IPAG secretariat

Project timeline



Future service providers

We have heard (or will hear) the experience of a variety of existing service providers:

- Traditional electricity retailer
- Peer-to-peer electricity retailer
- Distributor
- Data analytics company

We have identified three new kinds of service provider to test our solutions against:

- Electric vehicle manager
- Peer-to-peer platform (not a complete retailer)
- Smart switcher

The goal of this session is to consider whether future service providers will need different inputs and face different problems.

Use case 1a: EV manager (location specific)

- A service provider contracts with an electric vehicle owner to:
  - Procure kWh energy to charge the vehicle
    - May charge the customer for kWh
    - May charge a flat rate
    - May provide for free (e.g. as part of vehicle purchase)
  - Control vehicle charging time and rate
  - Control vehicle to grid discharge
- Services are provided in relation to a location, not a vehicle. The service provider will manage a vehicle only while it is plugged in at the location.

Use case 1b: EV manager (vehicle specific)

- A service provider contracts with an electric vehicle owner to:
  - Procure kWh energy to charge the vehicle
    - May charge the customer for kWh
    - May charge a flat rate
    - May provide for free (e.g. as part of vehicle purchase)
  - Control vehicle charging time and rate
  - Control vehicle to grid discharge
- Services are provided in relation to the vehicle, not the location. The service provider will manage the vehicle at whatever location it is plugged in.

Use case 2: Peer-to-peer trading platform

- Neighbours buy and sell energy between themselves:
  - Option A: sales restricted to export only
  - Option B: sales allowed above exports
- Trade matching mechanisms:
  - Option 1: central platform matches buyers and sellers and manages central market processes
  - Option 2: central platform matches buyers and sellers, but does not take any market role. Individual positions have to be reflected in central market processes.
- Which of these options should we test against?

	1 – market platform	**2 – non-market platform**
A – export only	Include	Include
B – unrestricted	Include	Exclude

Use case 3: Smart switcher

- A comparison service:
  - Uses ICP usage data and pricing/tariff data from multiple service suppliers
  - Identifies the best combination of suppliers for retail customers (industrial, commercial or household)
  - Automatically switches services to new suppliers on a regular basis

Case study

Jan runs a small transportation business. She has a single depot in the Hutt Valley.

- The depot has a 10kW rooftop PV system and a 40kWh battery system
- She has a fleet of 10 electric vans, with v2g capability. Most (but not all) are at the depot overnight.

Jan uses a variety of electricity service providers:

- An EV Manager who manages fleet charging wherever they are plugged in (including at the depot)
- A Retailer, who supplies all the other load at the depot
- A Smart Switcher, who automatically switches depot supply to the cheapest retailer at any given time
- She donates any solar export from the depot to the local school, through a peer-to-peer platform.

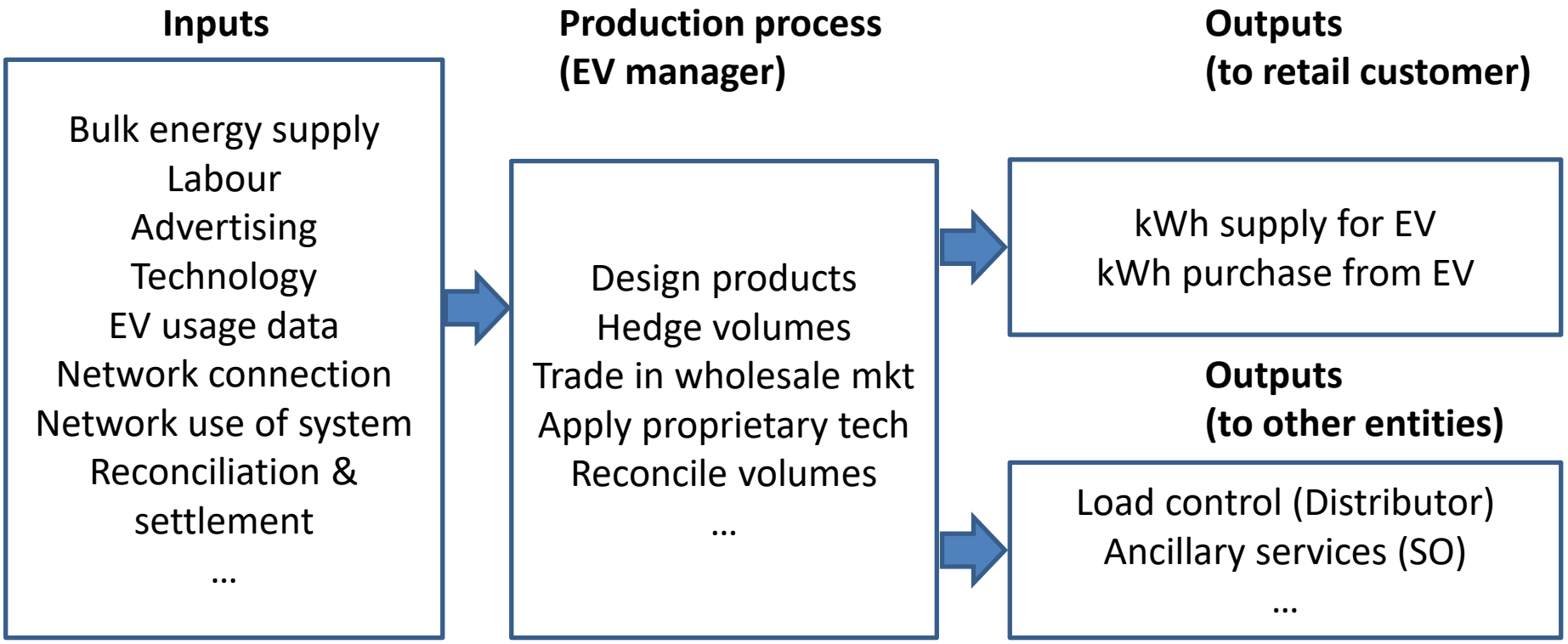
Workshop session

- Who are the new service providers?
- What input services will they need?
- Which existing relationships/agreements are affected?
- What data will they need?
- Who (if anyone) has that data now, and will that change in future?

Group discussion to consider answers for the identified use cases

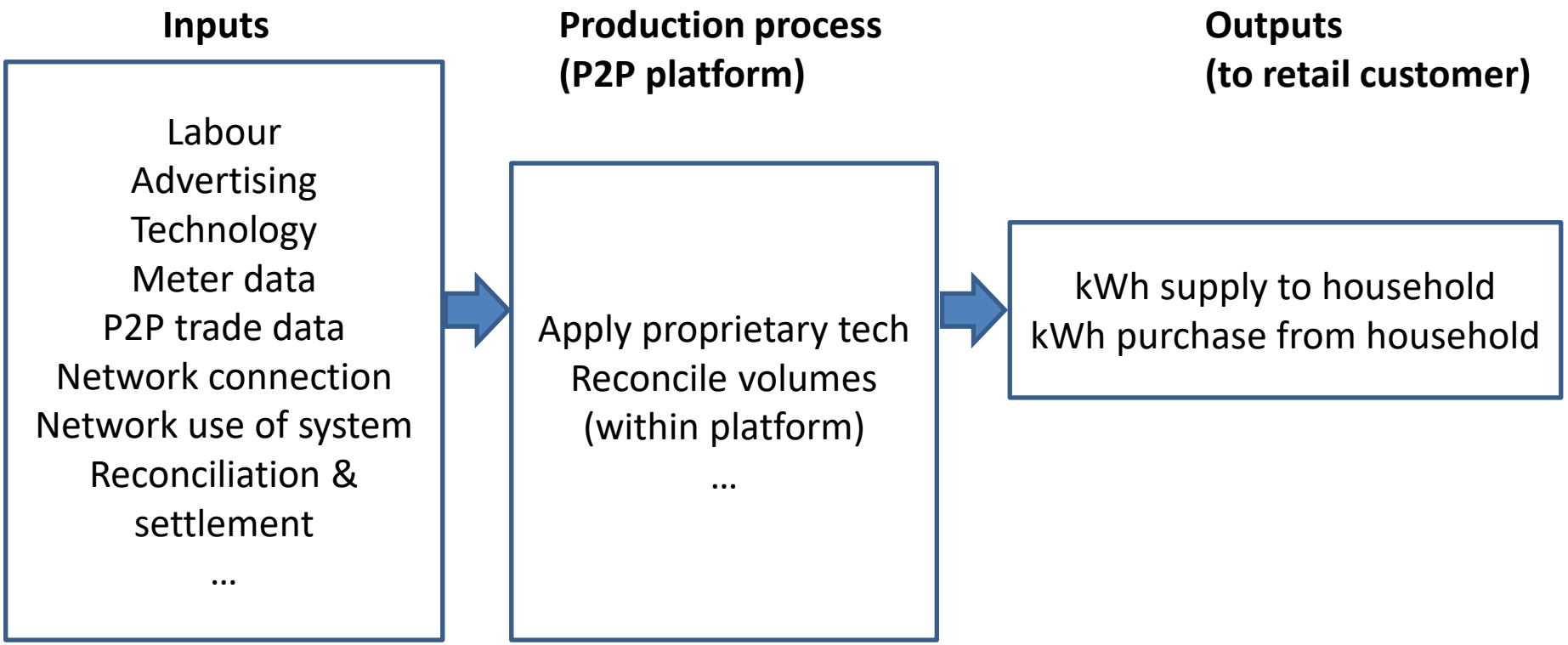
Brainstorming to consider answers for other new services

Use case 1: EV manager



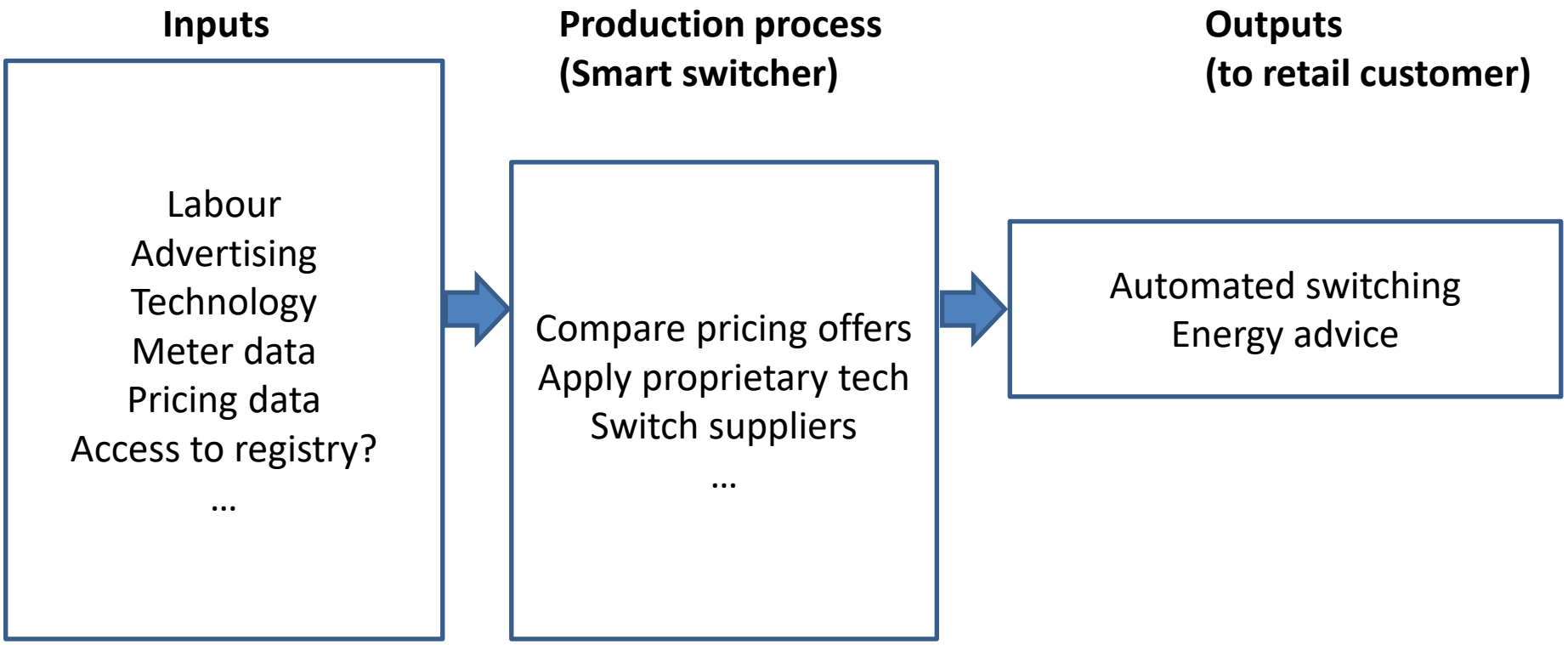
Changes required/problems with current arrangements:
- No mechanism ensuring fair allocation of contribution to network & metering charges
- No mechanism to reconcile sub-ICP volumes
- No way to net volumes from multiple locations

Use case 2: P2P platform (market)



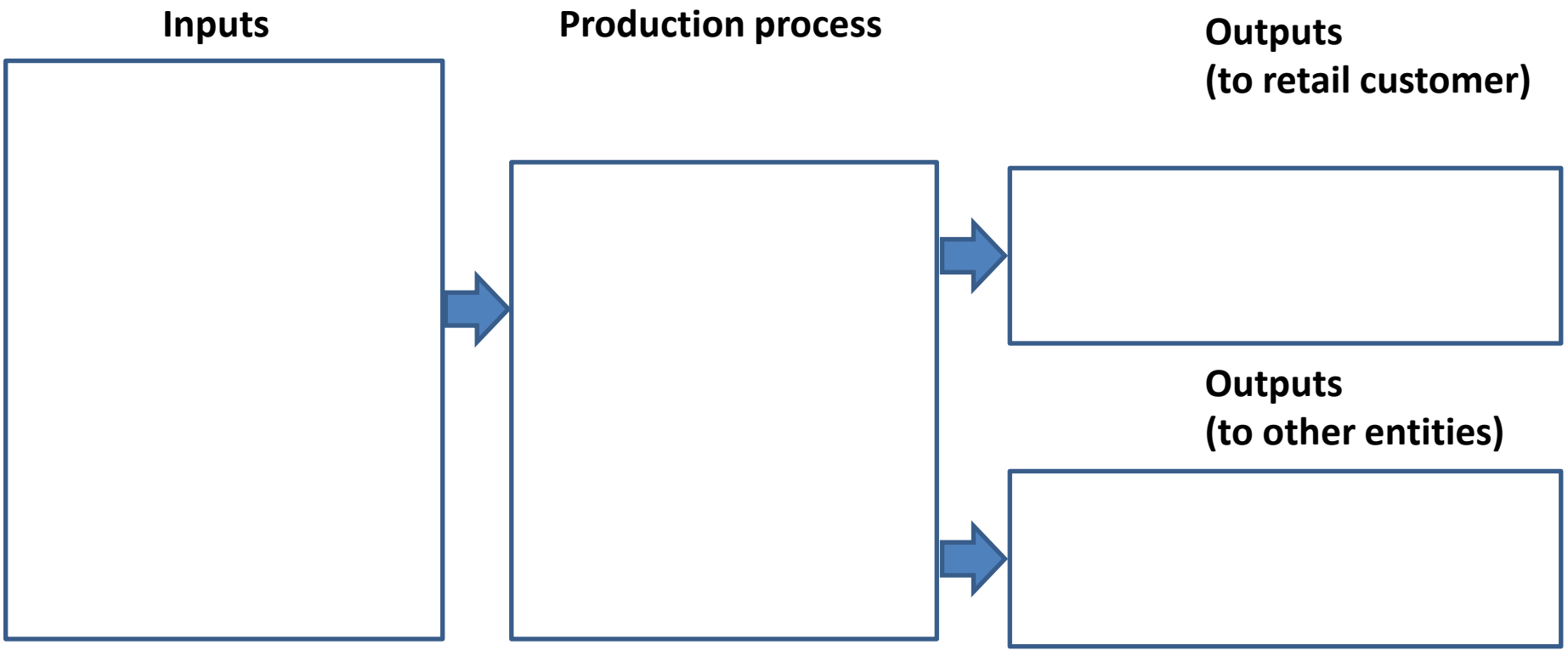
Changes required/problems with current arrangements:
- No mechanism ensuring fair allocation of contribution to network & metering charges
- No mechanism to reconcile sub-ICP volumes in central market processes
- No way to net p2p volumes across retailers

Use case 3: Smart switcher



Changes required/problems with current arrangements:
- No current mechanism to access retail pricing data (held by retailers)
- No central mechanism to switch sub-ICP services

Service provider template



Changes required/problems with current arrangements:

Workshop wrap-up

- Are there other output services that we should consider?
- Have we identified any new input services?
- Do they meet the ‘in-scope’ criteria?
- Do we need to adjust our problem categories?