

# Regional Dialogue Exploring a Bundled Transmission & Power Product 9/12/07



# Issues Addressed

## Overall

- This presentation addresses the potential for a bundled transmission and power product and the potential for Power Services to provide scheduling services for some subset of load following customers.

## Background

- Connection to Regional Dialogue Policy and other BPA initiatives
- BPA and customer-developed objectives for the load following product

## Proposal

- Alternatives considered
- Additional considerations (mandatory requirement or option)

## Not Addressed in this Packet

- Providing scheduling/support services for customer's non-federal generation in excess of their load needs.



# Connection to Regional Dialogue Policy and Other Initiatives

- In the Policy, BPA stated it would explore in the product development process the feasibility and desirability of a bundled power and transmission product.
- Power Services is developing a range of power products under Regional Dialogue, some BPA products provide some or all of the customer's load service.
  - For those products where Power Services is either serving a customer's load at a Tier 2 rate alternative or supporting the customer's non-federal resource dedicated to load, is there a fundamental business need for Power Services and the customer to have Power Services be responsible for the scheduling of the customer's federal system purchase and the customer's non federal resources?
- There is much uncertainty surrounding the level of transmission scheduling that will be required over the next 20 years. We do expect that Transmission Services will require scheduling of NT transactions at some more detailed level during the next few years and require more detailed scheduling information for the current "BPA System" point of receipt which is used for both NT and PTP schedules. This will add complexity for both the customers and Power Services.



# Objectives

- Power Services is able to effectively and efficiently manage the federal hydro system in the best interest of the Region.
- Processes are simple and easy to implement/administer.
- Greatest benefit at least cost (financial and administrative) to both BPA and the customer.
- Customers pay the cost of the services they take from Power Services.
- Consistent with Load Following Product Objectives.



## Background

- The majority of BPA load following customers have not had to schedule deliveries to load under their NT transmission contracts. As TS develops additional tools to manage the FCRTS, transmission scheduling will likely be required of all transmission customers.
- The “BPA System” scheduling point of receipt may need to become more descriptive (possible broken into zones) to enable TS to manage short-term ATC and system conditions. Under such a construct, Power Services will need to provide the scheduling point of receipt (on a preschedule and real-time basis) for all our customers that have purchased power as a federal system sale.
  - There may be alternatives to Transmission Services requiring scheduling at a single resource (or set of resources) point of receipt to load. At this time it is unclear what those alternatives might be.
- Currently on behalf of the non-scheduling NT customers, Power Services schedules energy on secondary NT service on a daily basis to efficiently move augmentation, balancing purchases, exchange energy, energy returns under capacity contracts, and energy coming to us under Storage and Shaping agreements to NT load.
  - If scheduling is required by each NT customer, Power Services would need to coordinate with the individual NT customers to schedule the delivery of the energy being imported by BPA to serve the customer’s load.



## Background, continued...

- Currently, Power Services schedules for 60+ of our requirements customers (those served through Transfer) on third party transmission provider systems.
- Power Services currently has a scheduling tool in place for Transfer Service Customers but to expand it to additional customers will take additional load forecasting capability, upgrades to the scheduling program and FTE plus time to further develop the program and forecasting capability.
- Under future NERC requirements, customers for which the transmission provider follows the load will likely be required to update their transmission schedules in real-time in order to avoid penalties if they exceed a specified bandwidth from actuals.
- There can only be one scheduling service provider per NT contract for the source of power (federal or non-federal) being used to serve the customer's load.



# Alternative 1: Energy provided to customer at the busbar (Status Quo)

## Key elements:

- Customers continue to hold their own NT contract and are responsible for all scheduling and non-scheduling requirements of the NT Agreement and Tariff.
- Customer receives separate bills for transmission and power.
- Requires a high level of hourly resource coordination between Power Services and customer for federal power purchases as well as any resource support services purchased from Power Services.

## Benefits:

- Customers are able to directly manage their energy deliveries from acquisition to scheduling.

## Challenges:

- Customer who do not currently schedule their federal deliveries to load will need to develop a means to schedule their federal and non-federal purchases to load (either in-house or from a third party).
  - It is unclear whether this would be required of customers served by Transfer.
- Daily and hourly coordination between Power Services and customer. The more detailed the transmission schedules become the more coordination is necessary.
- Power Services would need to coordinate with the individual NT customers to schedule the delivery of the energy being imported by BPA to serve the customer's load (for example, system balancing purchases).



# Alternative 2: Bundled Transmission and Power Product

## Key elements:

- Offered to load following customers with NT transmission service who elect to have Power Services serve its entire load above its HWM under a Tier 2 rate alternative.
- Power Services holds the NT contract and is responsible for all aspects of such service.
- Customers receives one bill from BPA for its power and transmission. PS receives a transmission bill from Transmission Services.
- Customers receiving bundled service would pay the costs associated with bundling of power and transmission.

## Benefits:

- Customers have one contract with BPA.
- Power Services has a contractual link to the transmission system for service to customer's load.
- Provides Power Services with the information and flexibility needed to efficiently manage the federal system on a daily and hourly basis.

## Challenges:

- Treatment of federal generation as a designated Network Resource may not be a "system sale" designation.
- Customers may choose to acquire non-federal resources at some point over the term of the power contract and at that point we would have to unbundle the service and assign the NT contract back to customer.
- Customers would not have a contractual relationship with Transmission Services.
- Power Services may not always be able to represent a specific customer's interests with Transmission Services.



## Alternative 3: Scheduling Service for Load Following Customers with NT Transmission Service

### Key elements

- Power Services forecasts customer load and submit transmission schedules for all of the energy (both federal and non-federal) being used to serve customer's load.
- Customers continues to hold their own NT contract and are responsible for all non-scheduling requirements of the NT Agreement and Tariff.
- Customers receiving scheduling services pay the incremental costs associated with the scheduling services.
- Customer receives separate bills for transmission and power.

Possible subsets of load following customers with NT transmission service who would be eligible for scheduling services from Power Services:

- Subset 1: Customers who have their entire load meet with PF Power (charged at Tier1 and Tier 2 rates). *See Example 1 on page 13.*
- Subset 2: Customers who only have a portion of their load above the HWM met at a Tier 2 rate alternative.
- Subset 3: Customers who are purchasing Resource Support Service(s) from Power Services. *See Example 2 on page 14.*
- Subset 4: Customers who are only purchasing power at Tier 1 rates. *See Example 3 on page 15.*



# Alternative 3: Scheduling Service for Load Following Customers with NT Transmission Service

	Subset 1: Customers who have their entire load meet with PF Power (charged at Tier1 and Tier 2 rates).	Subset 2: Customers who only have a portion of their load above the HWM met at a Tier 2 rate alternative.	Subset 3: Customers who are purchasing Resource Support Service(s) from Power Services.	Subset 4: Customers who are only purchasing power at Tier 1 rates.
<b>Benefits/Challenges</b>				
(B) Power Services is able to effectively and efficiently manage the federal hydro system in the best interest of the Region.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
(B) Processes are simple and easy to implement/administer for BPA and customer.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
(B) Greatest benefit at least cost (financial and administrative) to both BPA and the customer.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
(B) Streamlined responsibilities for customers serve by Transfer (Power Services responsible for scheduling the delivery of energy from busbar to customer load).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
(B) Helps ensure there is not a bias to customer choice between a power product under a Tier 2 rate alternative and non-federal resources.				<input checked="" type="checkbox"/>
(B) Provides Power Services the tools and information needed to effectively manage the resource support service.			<input checked="" type="checkbox"/>	
(C) Power Services will need to develop hourly forecasting systems for loads within the control area	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
(C) Coordination with customer for non-federal energy delivery to load.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



## Alternative 3: Scheduling Service for Load Following Customers with NT Transmission Service

**If offered, should there be a mandatory requirement to take scheduling services from Power Services?**

- There are efficiencies in an all or nothing approach to providing scheduling services. Particularly for customers who purchase power to serve their load above the HWM under any of the Tier 2 rate alternatives or are purchasing any of their resource support services from Power Services.
- For customers acquiring resource support services from Power Services, it is important that Power Services is able to have access to the information needed on the non-federal resources and be able to respond to resource fluctuations with schedule changes in a timely fashion. A streamlined approach would be to have Power Services provide scheduling services for customer's resources to meet load.

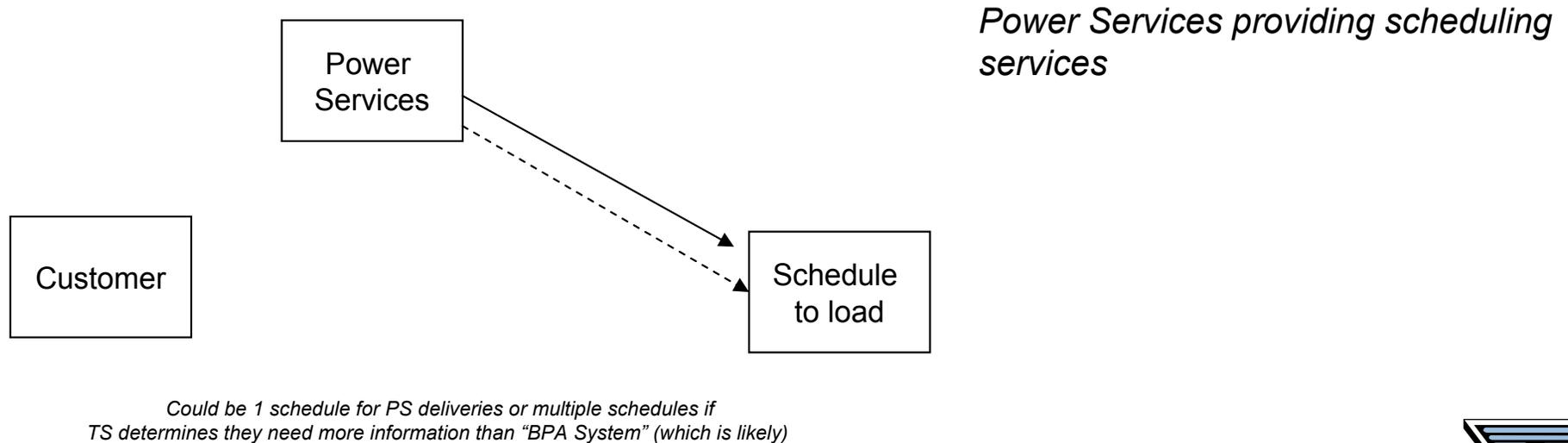
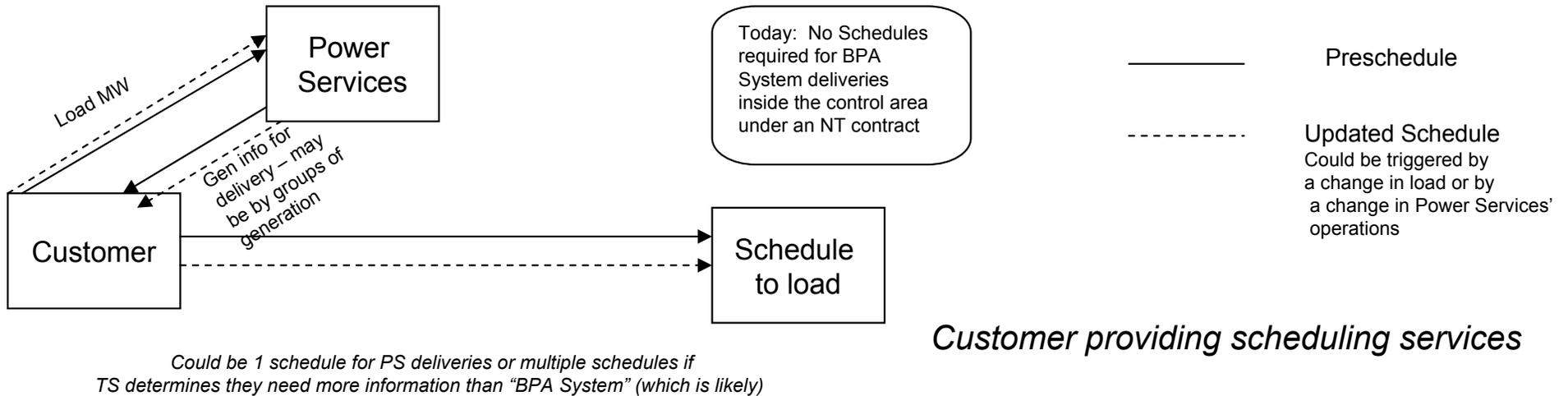


## Tentative Recommendation

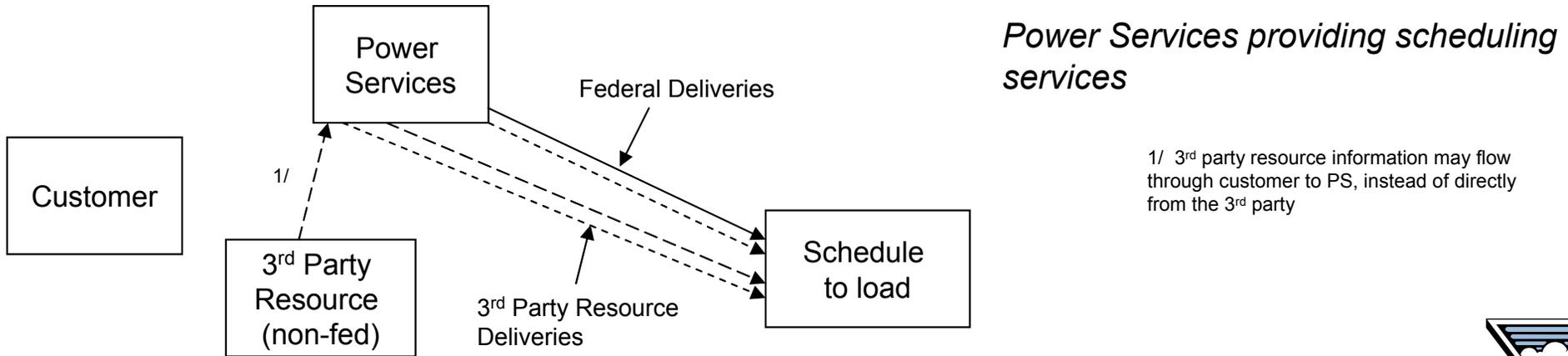
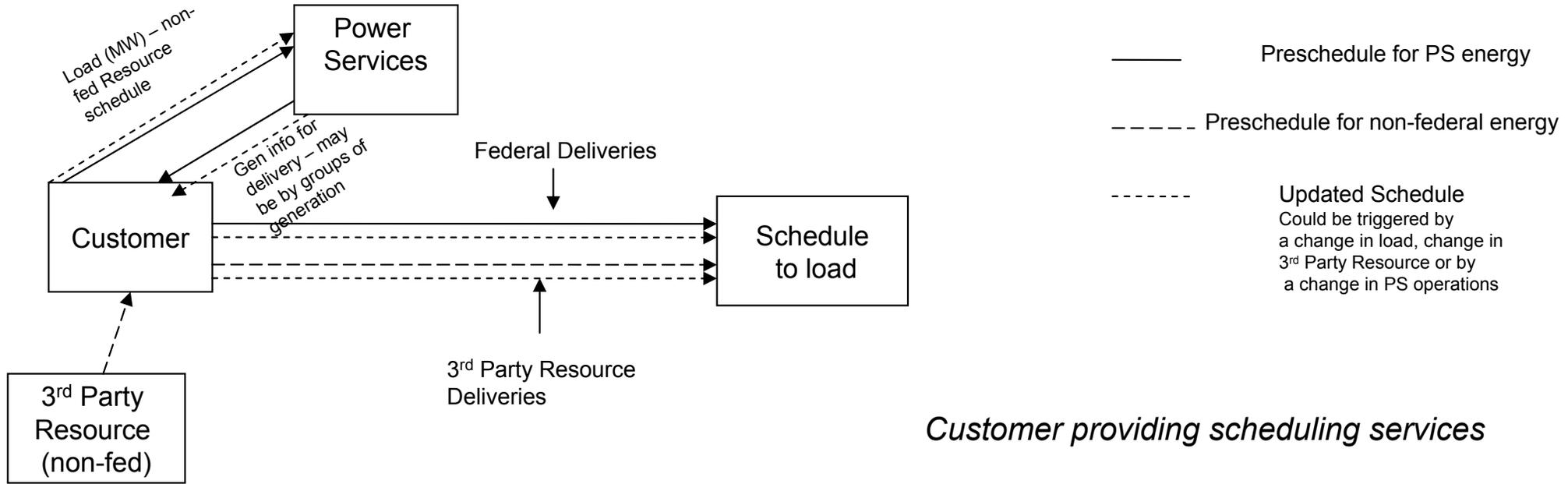
- Current thinking is that Power Services would provide Scheduling Services to load following customers with an NT Transmission Service contract.
- Customers would continue to hold their own transmission contract for delivery across the federal transmission system.
- We believe it is beneficial to require customers to take Scheduling Services from Power Services if they fall into Subset 1, 2 or 3. This would streamline coordination and information flow necessary to ensure the customer's load is being met in any hour.
- In order to mitigate any bias towards acquiring energy or support services from Power Services, customers who fall within Subset 4 would need to be offered Scheduling Services as well.
- Having Power Services provide scheduling services is expected to reduce the complexity of implementing BPA's power products and ease burden on Power Services and customers as transmission scheduling requirements change over time.



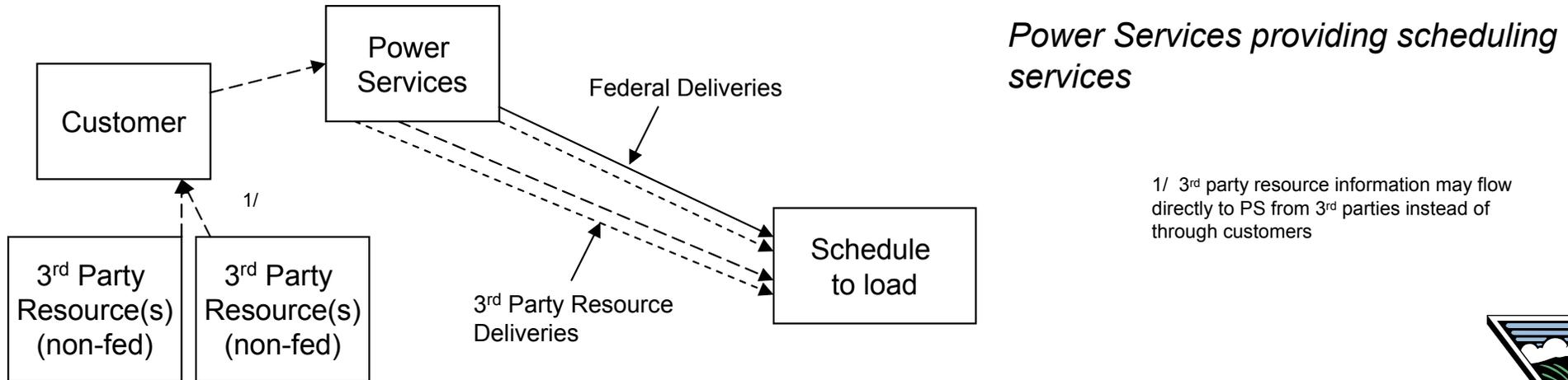
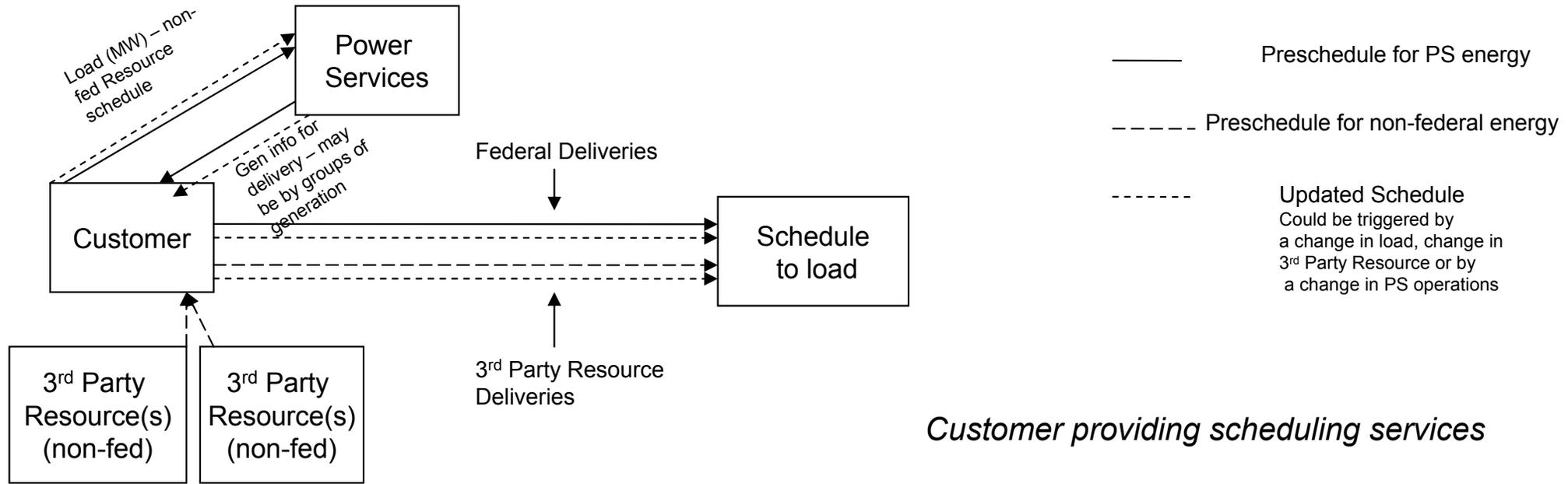
### Example 1: Illustration of possible scheduling for customers who have their entire load meet with PF Power (charged at Tier1 and Tier 2 rates).



Example 2: Illustration of possible scheduling for customers who purchase resource support services from BPA (assumes BPA is only resource support service provider).



### Example 3: Illustration of possible scheduling for customers who are only purchasing power at Tier 1 rates



1/ 3rd party resource information may flow directly to PS from 3rd parties instead of through customers

