



2018 / 2019 ICE Action

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# **ICE Telecommunication Initiatives : Contestable Work Options**

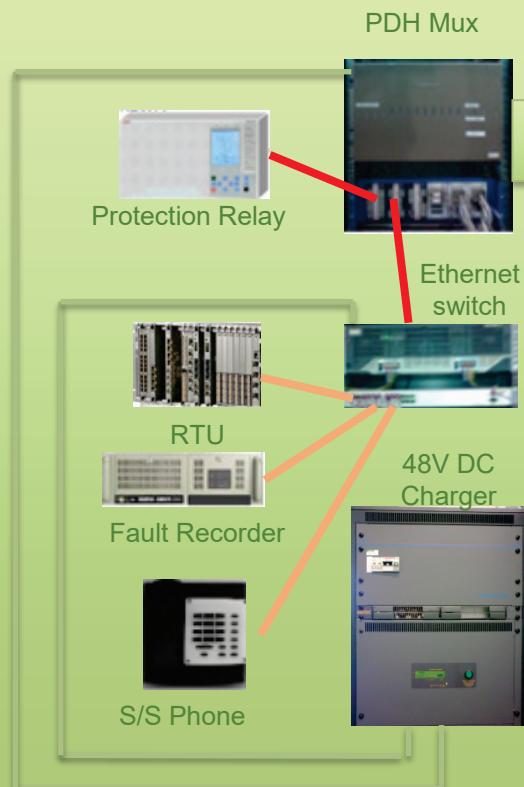
## Summary

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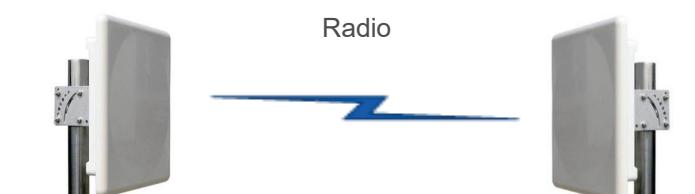
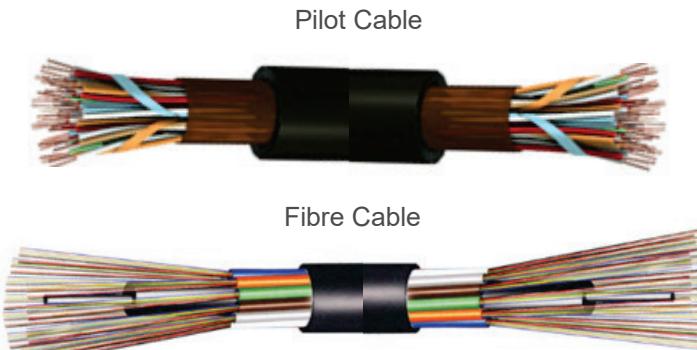
- Outline of Telecom scope of work
- Review options for contestable works for comms interconnections between sites
- Reviewed further option for contestable works including PDH ,IP and DC equipment
- Share the support we can provide today and provide visibility of areas for further development

# Telecoms , Protection and Scada model diagram for Renewables Connection

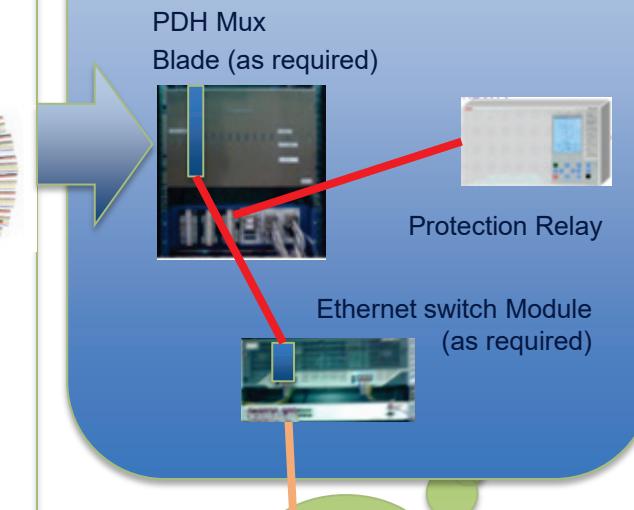
New Substation connecting  
Renewables Generator



## Telecoms Interconnection Media



## Existing Substation

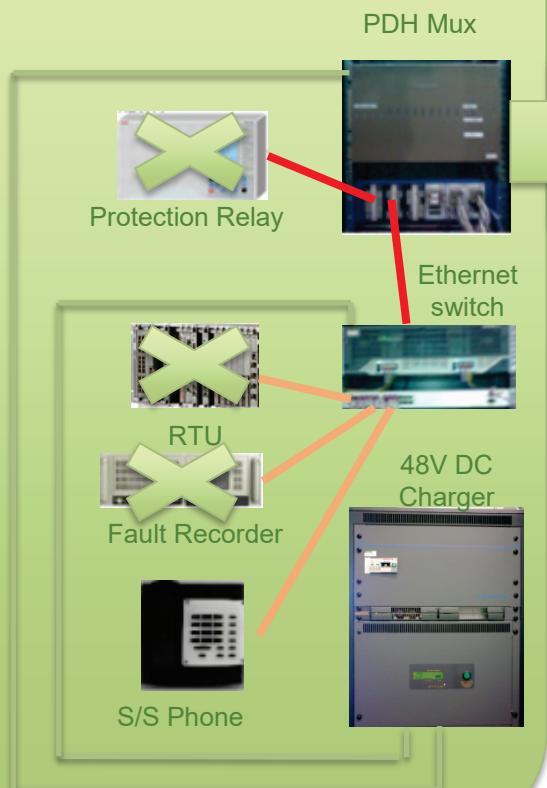


Operation Telecoms  
Network

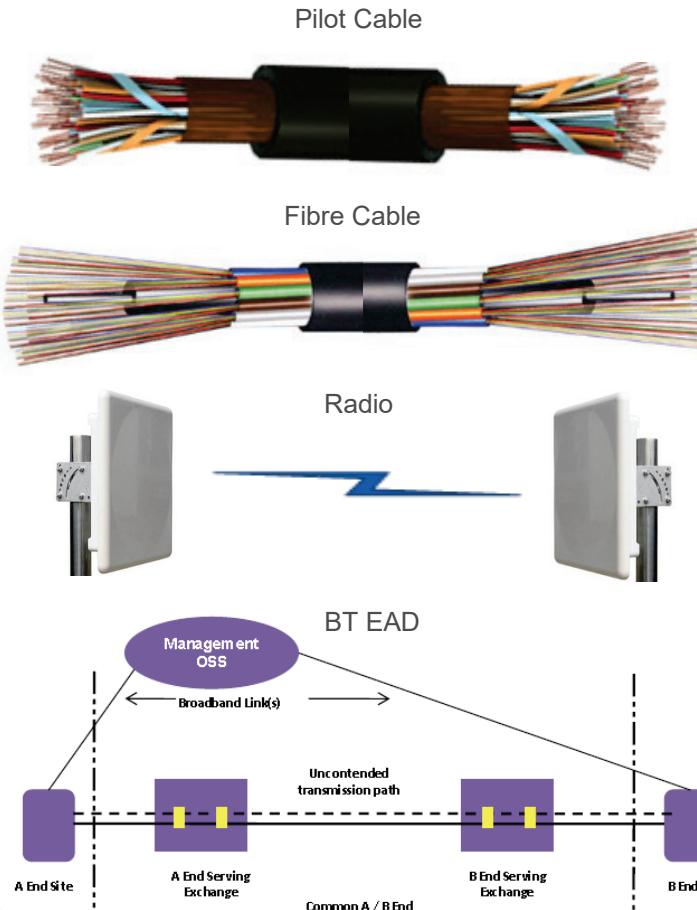


# 'Telecoms' Scope of work within a Project

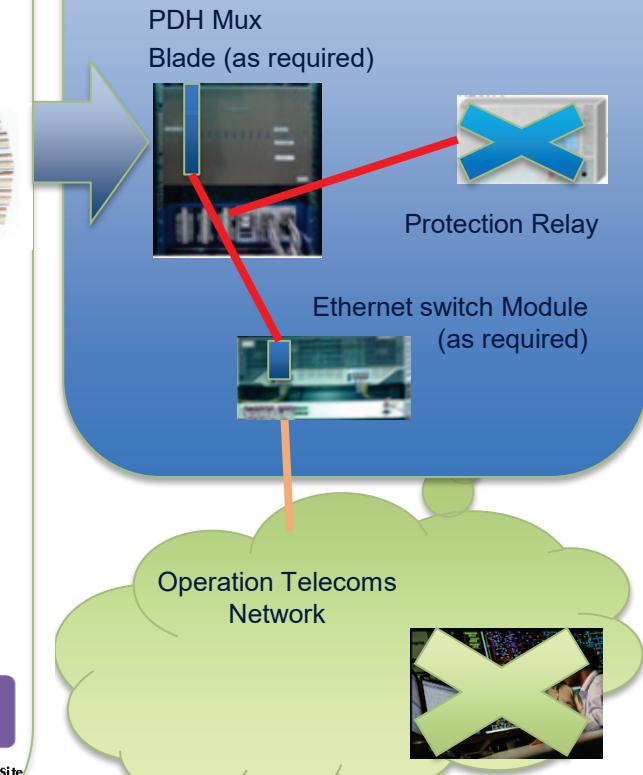
New Substation connecting Renewables Generator



Telecoms Interconnection Media

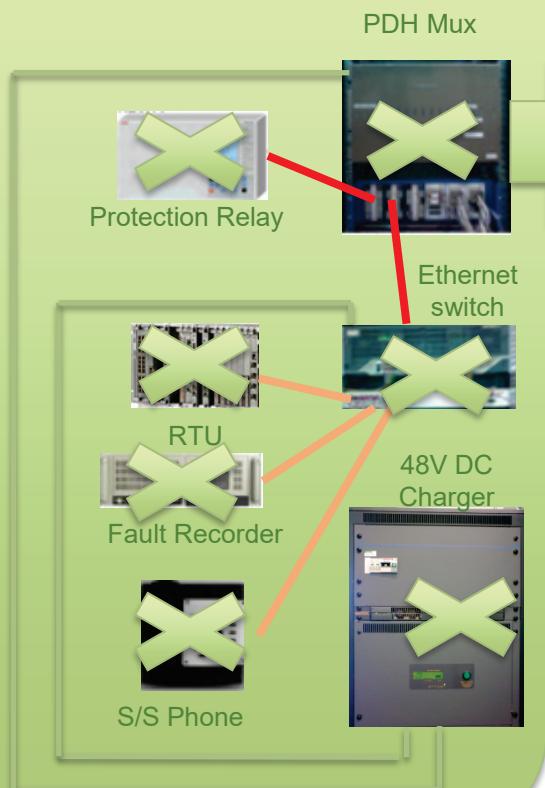


Existing Substation

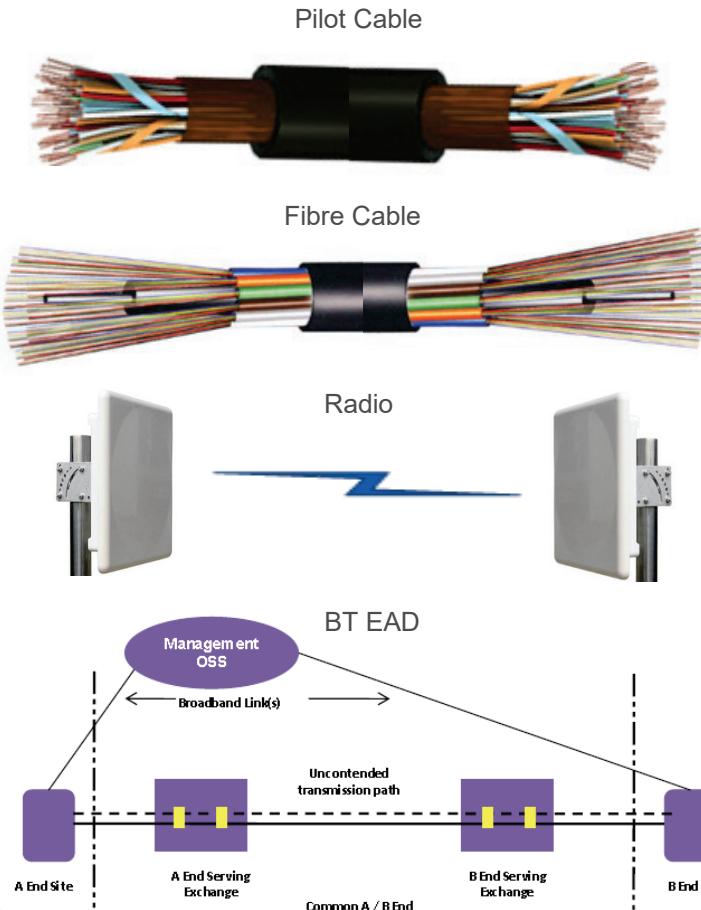


# 'Telecoms' Project – Contestable Option 1

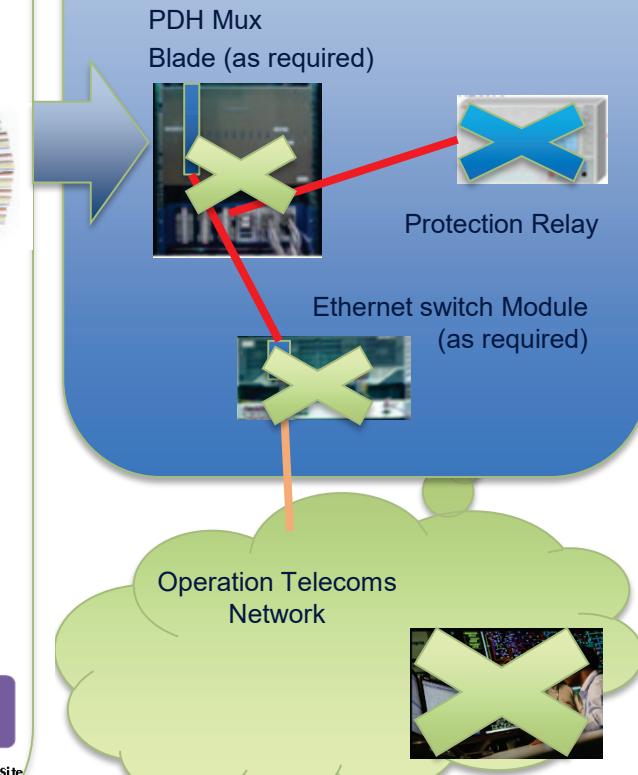
New Substation connecting  
Renewables Generator



Telecoms Interconnection Media



Existing Substation



## Opportunities for contestable elements – Interconnection media (Option 1a)

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- Fibre / Copper Cables
  - Cable Specifications ✓
  - Testing & Commissioning documents ✓
  - Recommended Installers / System Integrators ✓
  - Issue : SPEN adoption cost – records/drawings × (can be developed )

## Opportunities for contestable elements – Interconnection media (Option 1b)

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- Point to Point Radio Links
  - Approved equipment list ✓
  - Testing & Commissioning documents ✓
  - Recommended Installers / System Integrators ✓
  - Issue : SPEN Integration cost & process × (can be developed )
  - Issue : SPEN Design Review & JRC OFCOM license novation × (can be developed )

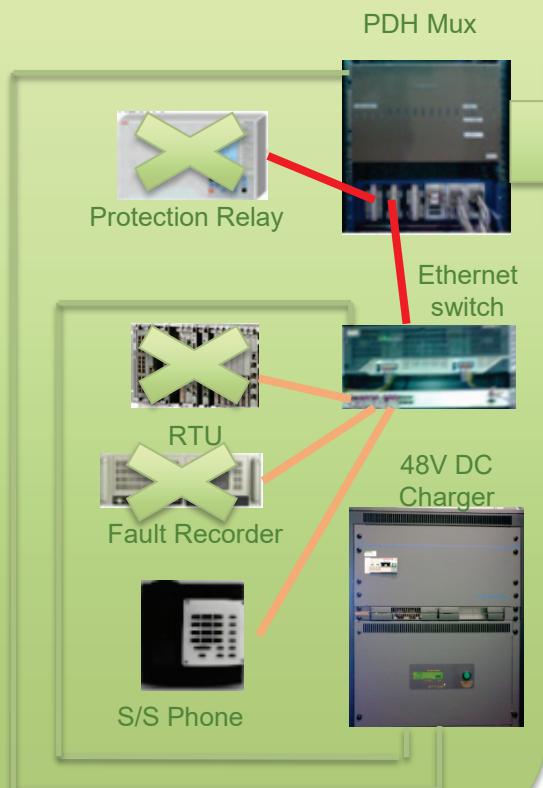
## Opportunities for contestable elements – Interconnection media (Option 1c)

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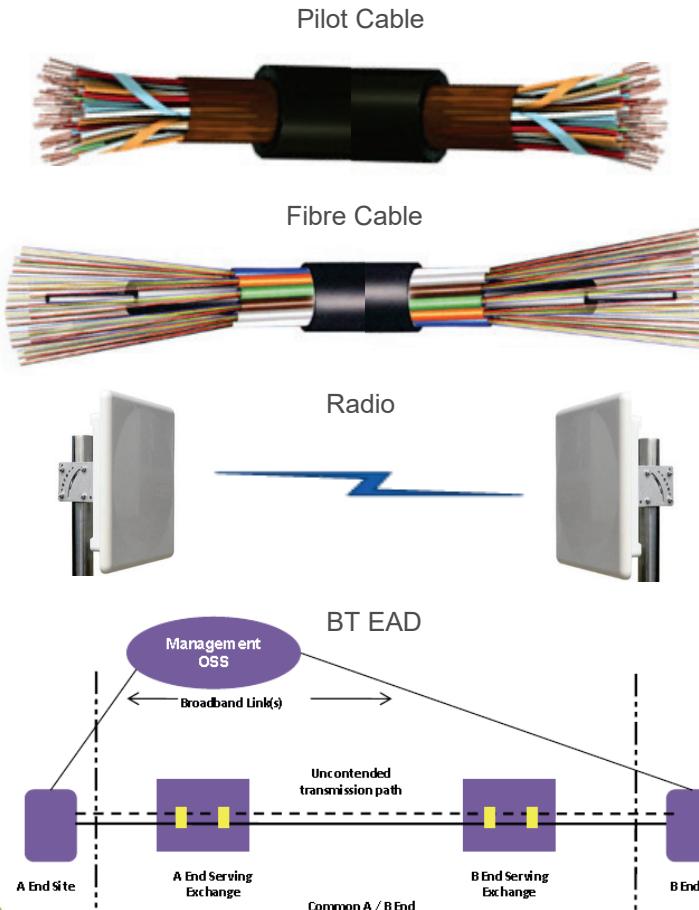
- BT EADs
  - Approved equipment list ✓
    - EAD100, or EAD100 ER dependent on distance
  - Testing docs ✓
  - Recommended Installers / System Integrators ✓
  - Issue : Openreach provide EADs to Comms Providers (CP) such as BT, Vodafone, Virgin, etc
  - SPEN Adoption of EAD is possible .Typically £15k of BT costs plus 24 months timeline to novate an EAD between parties. SPEN adoption process & cost would be developed.

# ‘Telecoms Project – Contestable Option 2

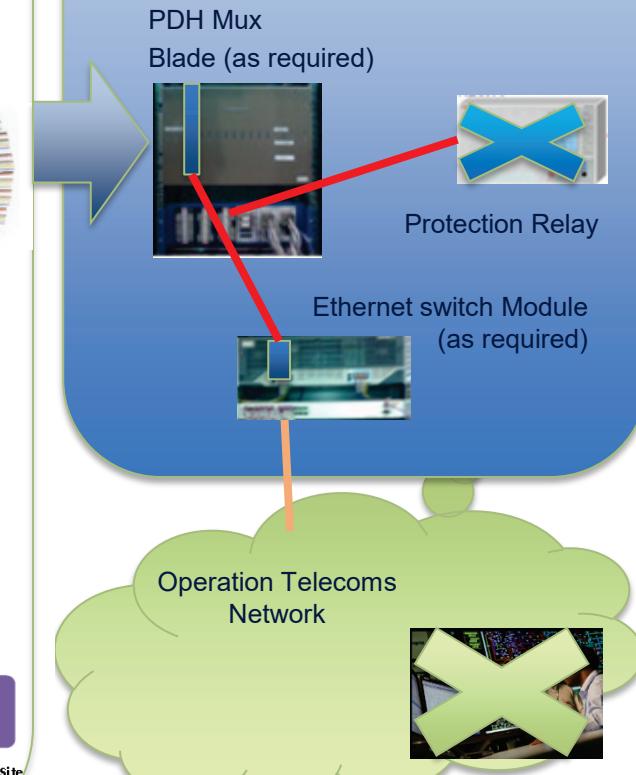
New Substation connecting  
Renewables Generator



Telecoms Interconnection Media



Existing Substation



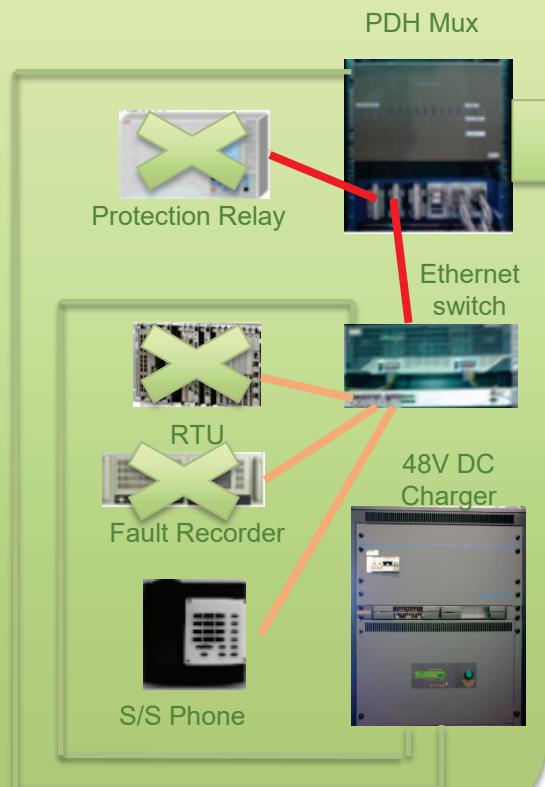
## Opportunities for contestable elements – Option 2 ( in addition to Option 1)

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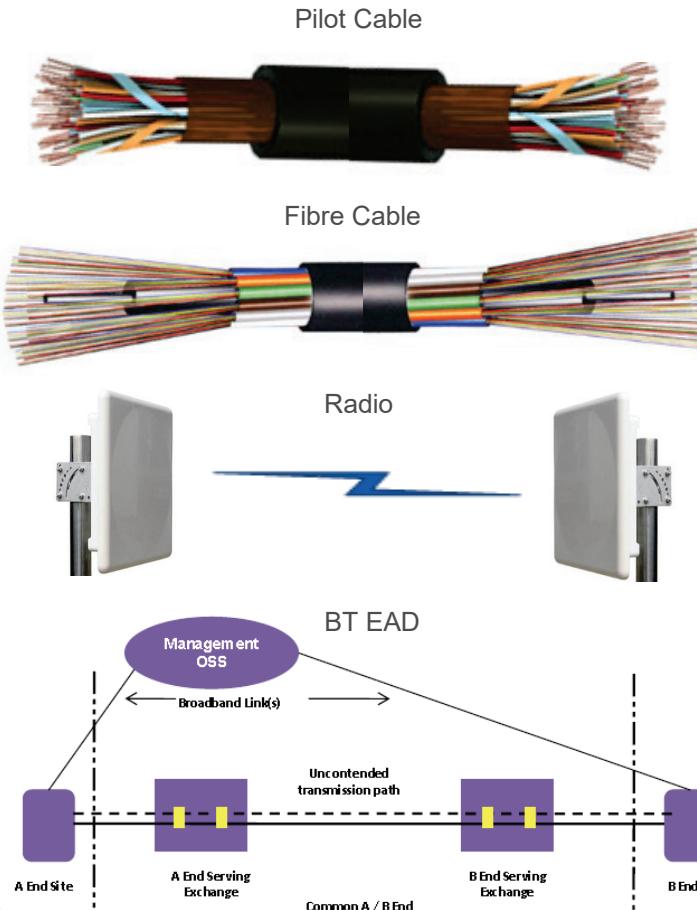
- Comms Network Equipment Supply and Installation
  - Approved equipment list for PDH ,IP and DC equipment ✓
  - Testing and Commissioning documents ✓
  - Recommended Installers ✓
  - Safety Rule compliance guidance for Installers B end works ✓
  - SPEN Design validation process & cost ✗ ( can be developed)
  - SPEN Integration process : network monitoring tools ✗ ( can be developed)
  - SPEN inventory adoption process & cost – records, drawings , asset database updates etc ✗ ( can be developed)

# ‘Telecoms Project – Contestable Option 3

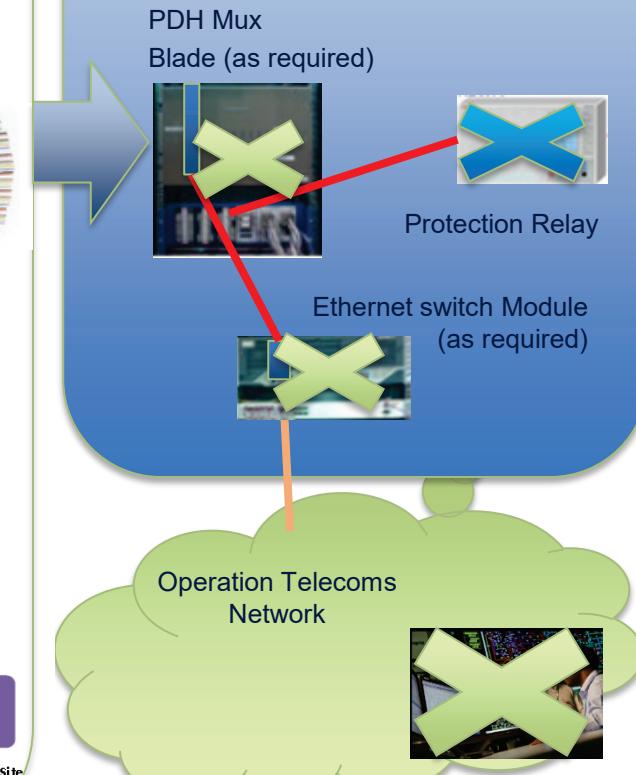
New Substation connecting  
Renewables Generator



Telecoms Interconnection Media



Existing Substation



## Opportunities for contestable elements – Option 3

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- Comms Network Equipment Supply and Installation

- Free issue of PDH ,IP and DC equipment at new Substation site for installation by developer ✓
- SPEN would complete all Telecom works at Existing Substation
- Testing and Commissioning documents ✓
- Recommended Installers ✓
- SPEN would complete overall Design for new and existing sites ✓
- SPEN Integration process : network monitoring tools ✗ ( can be developed)

## Recap

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- Outline of Telecom scope of work
- Reviewed 3 options for contestable works for comms interconnections between sites
- Reviewed further option for contestable works including PDH ,IP and DC equipment
- Shared the support we can provide today and provided visibility of areas for further development
- Preferred option seen as Option 3
- Next step would be a deeper review of Option 3 with customer's design team.