



**1 GREEN ISLAND SINGLE LINE DIAGRAM**  
E-G-03 N.T.S.

ELECTRICAL FEEDER SCHEDULE	
FEEDER NO.	FEEDER SIZE
1	2 #12 AWG RPV90, 600V, -40 TO 90°C
2	2 x [2C #3/0 AWG TECK90]
3	2C#10 TECK90
4	2C#2 TECK90
5	2C#2/0 TECK90
6	2C#4 TECK90
7	3C#1 TECK90
8	3C#10 TECK90
9	3C#8 TECK90
10	3C#6 TECK90
11	3C#4 TECK90
12	2C #1 TECK90

- ELECTRICAL KEY NOTES**
- INSTALL SOLAR PANELS, PROVIDED BY OWNER, ON EXISTING RACKING AS PER MANUFACTURER'S INSTRUCTIONS.
  - PROVIDE TWO DC COMBINER BOXES FOR ARRAY OF SOLAR PANELS AS INDICATED. COMBINER BOXES SHOULD BE CAPABLE OF ACCEPTING A MINIMUM OF THREE STRINGS AND SIZED FOR #12 AWG RPV90 CABLES IN AND #2 AWG TECK90 OUT. SCHNEIDER AB08-160 OR EQUIVALENT. MOUNT TO EXISTING SOLAR PANEL RACKING SYSTEM. COORDINATE ON SITE WITH STRUCTURAL CONTRACTOR.
  - PROVIDE #6 AWG COPPER GROUND CONDUCTOR FOR CONNECTION TO EACH SOLAR PANEL, TERMINATING AT THE COMBINER BOX.
  - PROVIDE TWO, 60A, 150VDC RATED DC DISCONNECT SWITCHES WITH 35A FUSES FOR SOLAR PANEL ARRAYS. MOUNT SWITCHES IN DISTRIBUTION EQUIPMENT ROOM. REFER TO LAYOUT DRAWING E-G-02.
  - PROVIDE TWO, 100A, 150VDC RATED DC DISCONNECT SWITCHES WITH 75A FUSES FOR SOLAR PANEL ARRAYS. MOUNT SWITCHES IN DISTRIBUTION EQUIPMENT ROOM. REFER TO LAYOUT DRAWING E-G-02.
  - PROVIDE SOLAR CHARGE CONTROLLER, MORNINGSTAR TS-MPPT-60 OR EQUIVALENT. MOUNT IN DISTRIBUTION EQUIPMENT ROOM. REFER TO DRAWING E-G-02.
  - PROVIDE SINGLE PHASE, 400A RATED, 2 BUS SPLITTER BOX FOR DC BUS. CONNECT TO EXISTING BATTERY BANK AS INDICATED.
  - PROVIDE DC DISCONNECT SWITCHES RATED FOR 100A. INSTALL INVERTERS, PROVIDED BY OTHERS, AND DISCONNECT SWITCHES IN EQUIPMENT ROOM AS INDICATED ON LAYOUT DRAWING E-G-02.
  - NOT USED.
  - PROVIDE DISTRIBUTION PANEL AS PER SPECIFICATIONS AND SINGLE LINE DIAGRAM, DETAIL 1.
  - PROVIDE CABLES, SIZED AS INDICATED. FINAL CABLE SIZES SHALL BE VERIFIED UPON CONFIRMATION OF EQUIPMENT SELECTION BY OWNER.
  - ENSURE PROPER COORDINATION AND CONNECTION OF WIND TURBINES, DIVERSION CONTROLLER, AND DIVERSION LOAD THERMAL SENSORS IN ORDER TO GUARANTEE THE TURBINES WILL COME TO A STOP AS REQUIRED. REFER TO MANUFACTURER'S INSTRUCTIONS AND CONSULT MANUFACTURER OR ENGINEER AS REQUIRED.
  - INSTALL LOAD DIVERSION CONTROLLERS WITHIN 9m OF DC BUS.



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**SOLAR AND WIND POWER REPLACEMENT GREEN ISLAND FORTUNE BAY, NL**

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designed	R.M.D.	comp'd
date	APR. 2, 2014	
drawn	J.L.T.	descri'd
date	APR. 2, 2014	
approved	R.M.D.	approved
date	APR. 2, 2014	
Tender	ANDREW TEMPLE	Submission
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project number	133430024	no. du projet
drawing no.	E-G-03	no. du dessin