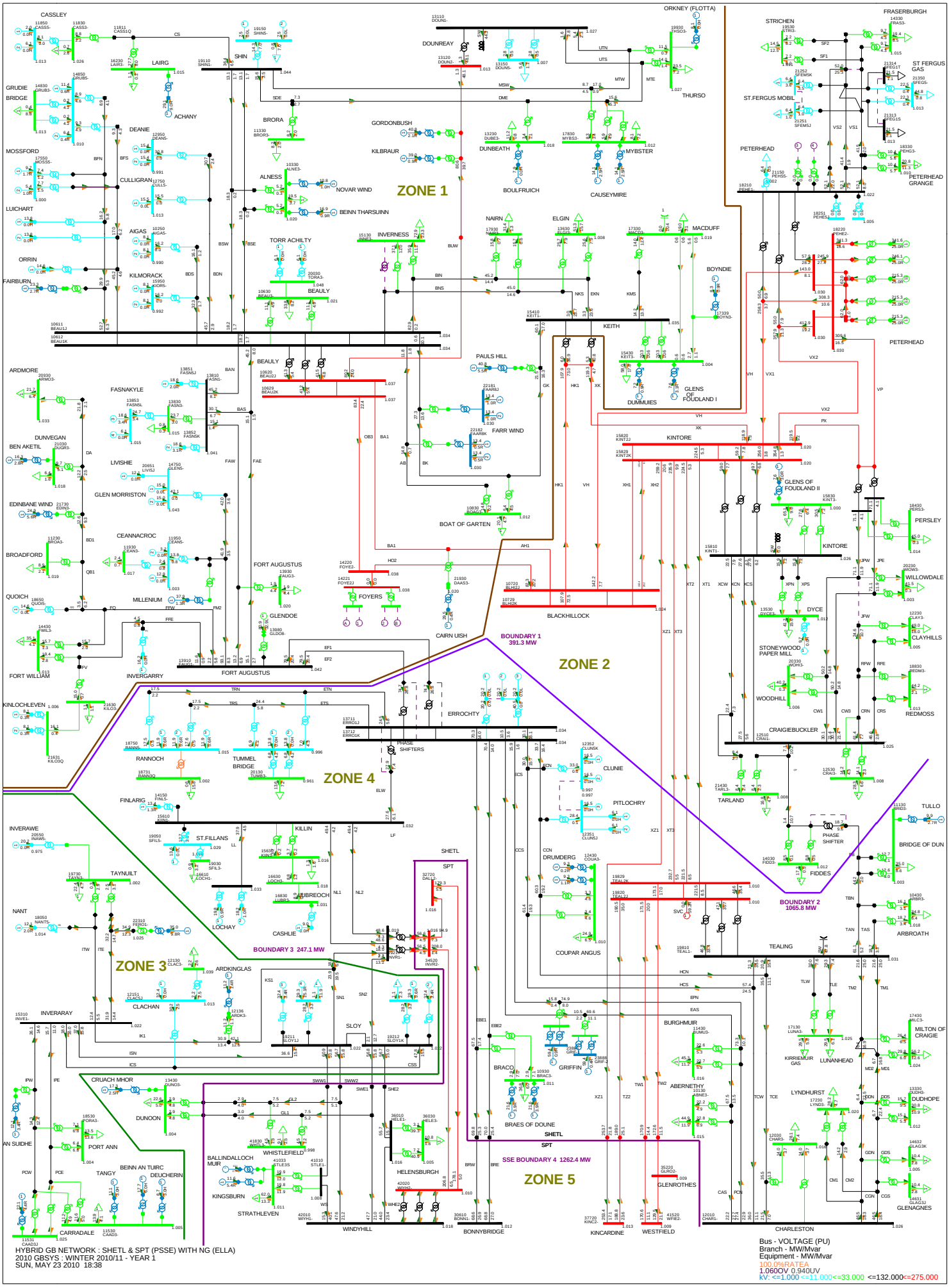
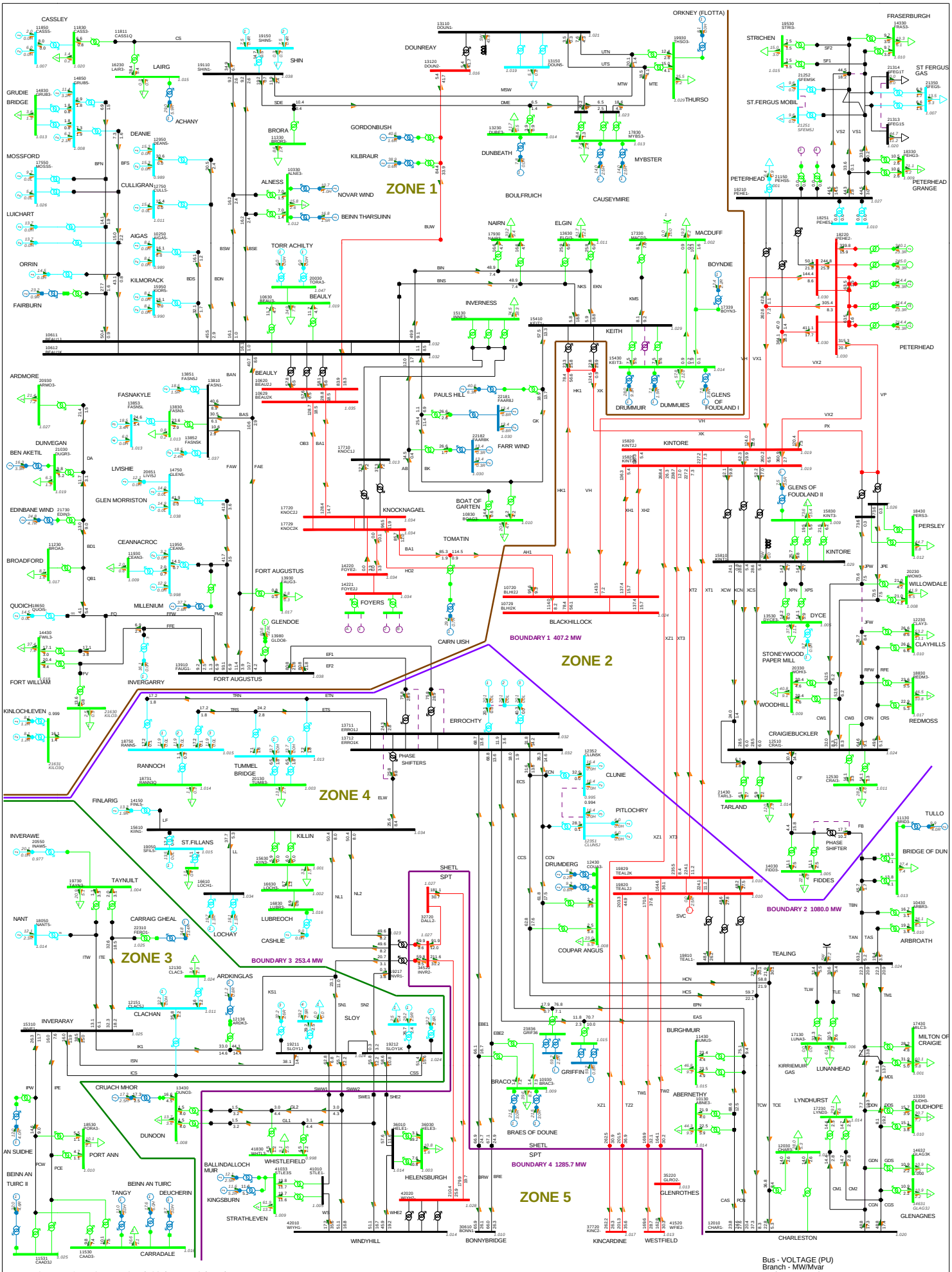
GB Seven Year Statement 2010
Appendix C
Power Flow Diagrams

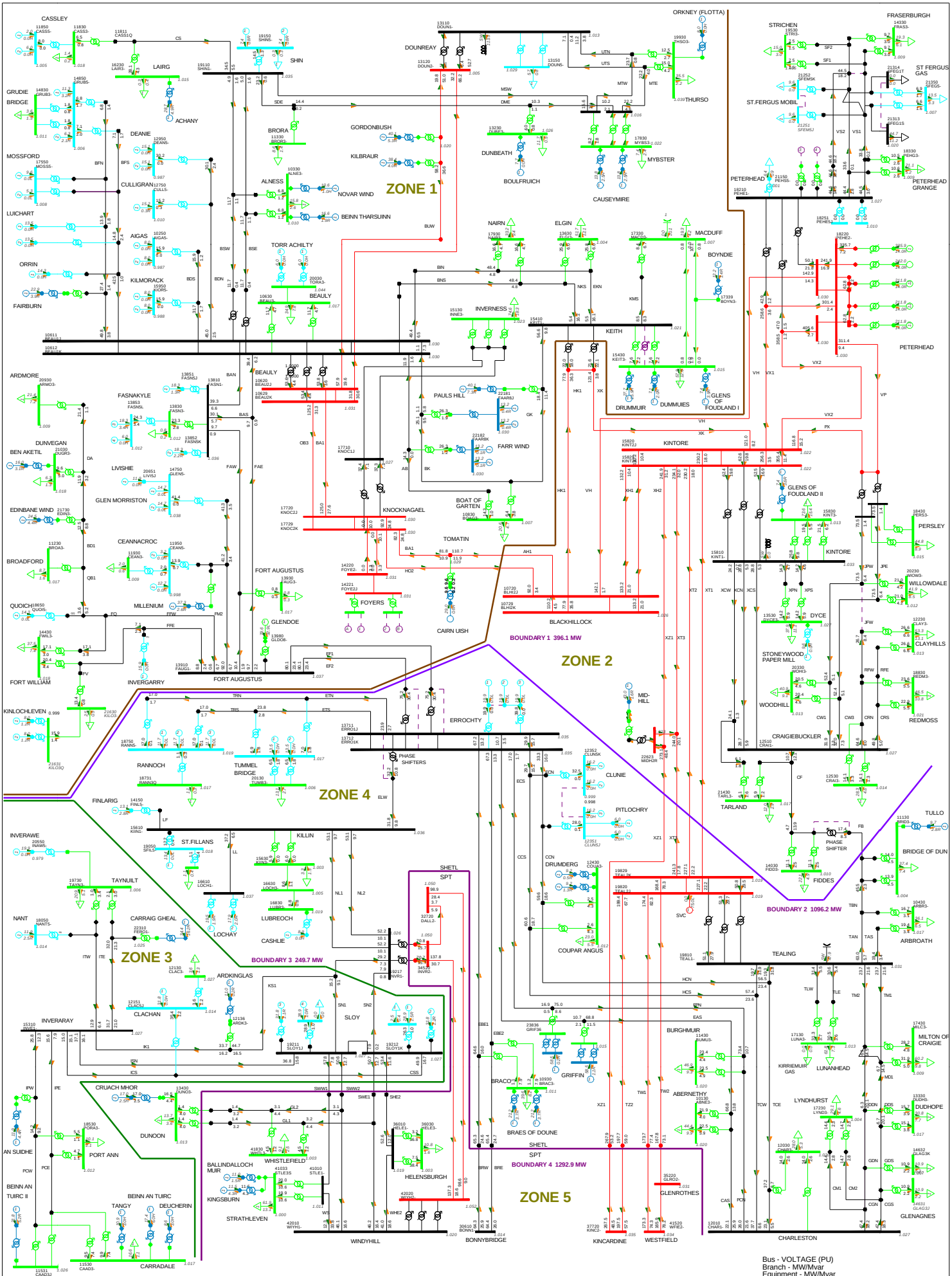
FIGURES



HYBRID GB NETWORK : SHETL & SPT (PSSE) WITH NG (ELLA)
2010 GBSYS : WINTER 2010/11 - YEAR 1
SUN, MAY 23 2010 18:38

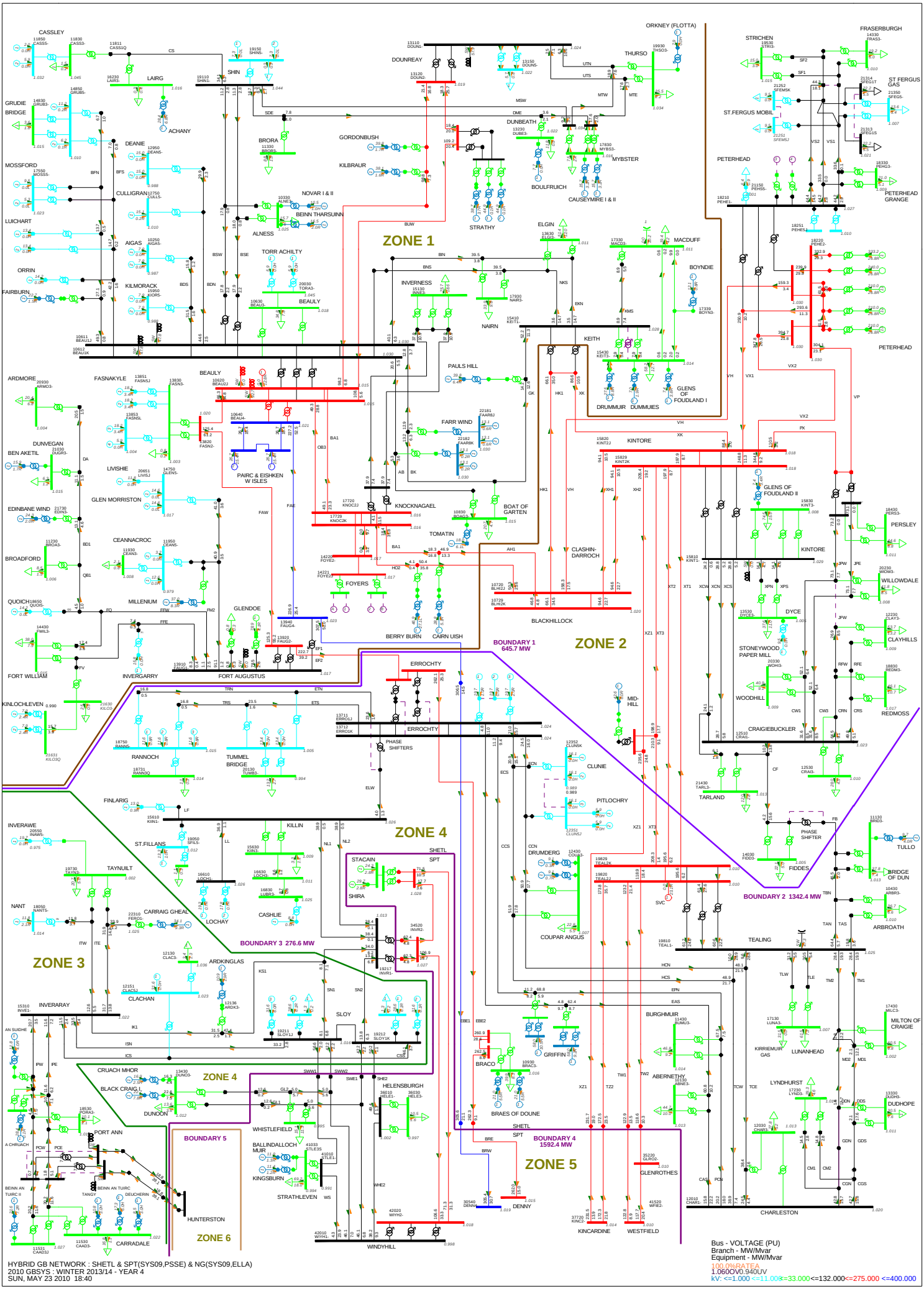
Bus - VOLTAGE (PU)
Branch - MW/Mvar
Equipment - MW/Mvar
100.0%RATEA
1.060OV 0.940UV
kV: <=1.000 <=11.000<=33.000 <=132.000<=275.000


ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
BOUNDARY 1 407.2 MW
BOUNDARY 2 1080.0 MW
BOUNDARY 3 253.4 MW
BOUNDARY 4 1285.7 MW
CASSLEY
ORKNEY (FLOTTA)
FRASERBURGH
STRICHEN
ST.FERGUS GAS
ST.FERGUS MOBIL
PETERHEAD
PETERHEAD GRANGE
GRUDIE BRIDGE
DOUNREAY
THURSO
MYBSTER
DUNBEATH
BRORA
GORDONBUSH
KILBRAUR
MOSSFORD
DEANIE
ACHANY
CULLIGRAN
LUICHART
AIGAS
ORRIN
KILMORACK
FAIRBURN
ALNESS
NOVAR WIND
BEINN THARSUINN
BOULFRUICH
CAUSEYMIRE
TORR ACHILTY
BEAULY
NAIRN
ELGIN
MACDUFF
BOYNDIE
INVERNESS
KEITH
DRUMMUIR
DUMMUIES
GLENS OF FOUDLAND I
GLENS OF FOUDLAND II
ARDMORE
FASNAKYLE
PAULS HILL
FARR WIND
KINTORE
DUNVEGAN
BEN AKETIL
LIVISHIE
GLEN MORRISTON
KNOCKNAGAEL
BOAT OF GARTEN
TOMATIN
EDINBANE WIND
CEANNACROC
BROADFORD
FORT AUGUSTUS
FOYERS
GLENDOE
CAIRN UISH
BLACKHILLOCK
PERSLEY
WILLOWDALE
DYCE
CLAYHILLS
STONEYWOOD PAPER MILL
WOODHILL
REDMOSS
CRAIGIEBUCKLER
TARLAND
QUOICH
MILLENIUM
FORT WILLIAM
INVERGARRY
FORT AUGUSTUS
KINLOCHLEVEN
ERROCHTY
PHASE SHIFTERS
CLUNIE
PITLOCHRY
TULLO
BRIDGE OF DUN
FIDDES
COUPAR ANGUS
TEALING
ARBROATH
FINLARIG
RANNOCH
TUMMEL BRIDGE
INVERAWE
ST.FILLANS
KILLIN
TAYNUILT
NANT
CARRAIG GHEAL
LOCHAY
LUBREOCH
CASHLIE
SHETL SPT
DRUMDERG
SVC
BURGHMUIR
ABERNETHY
KIRRIEMUIR GAS
LUNANHEAD
MILTON OF CRAIGIE
LYNDHURST
DUDHOPE
GLENAGNES
INVERARAY
CLACHAN
ARDKINGLAS
SLOY
BRAES OF DOUNE
GRIFFIN
BRACO
CRUACH MHOR
DUNOON
PORT ANN
AN SUIDHE
BEINN AN TUIRC II
BEINN AN TUIRC
TANGY
DEUCHERIN
CARRADALE
BALLINDALLOCH
MUIR
KINGSBURN
STRATHLEVEN
WHISTLEFIELD
HELENSBURGH
WINDYHILL
BONNYBRIDGE
GLENROTHES
WESTFIELD
KINCARDINE
CHARLESTON
HYBRID GB NETWORK : SHETL & SPT (PSSE) WITH NG (ELLA)
2010 GBSYS : WINTER 2011/12 - YEAR 2
SUN, MAY 23 2010 18:39
Bus - VOLTAGE (PU)
Branch - MW/Mvar
Equipment - MW/Mvar
100.0MVARATEA
1.060OV0.940UV
kV: <=1.000 <=11.000 <=33.000 <=132.000 <=275.000



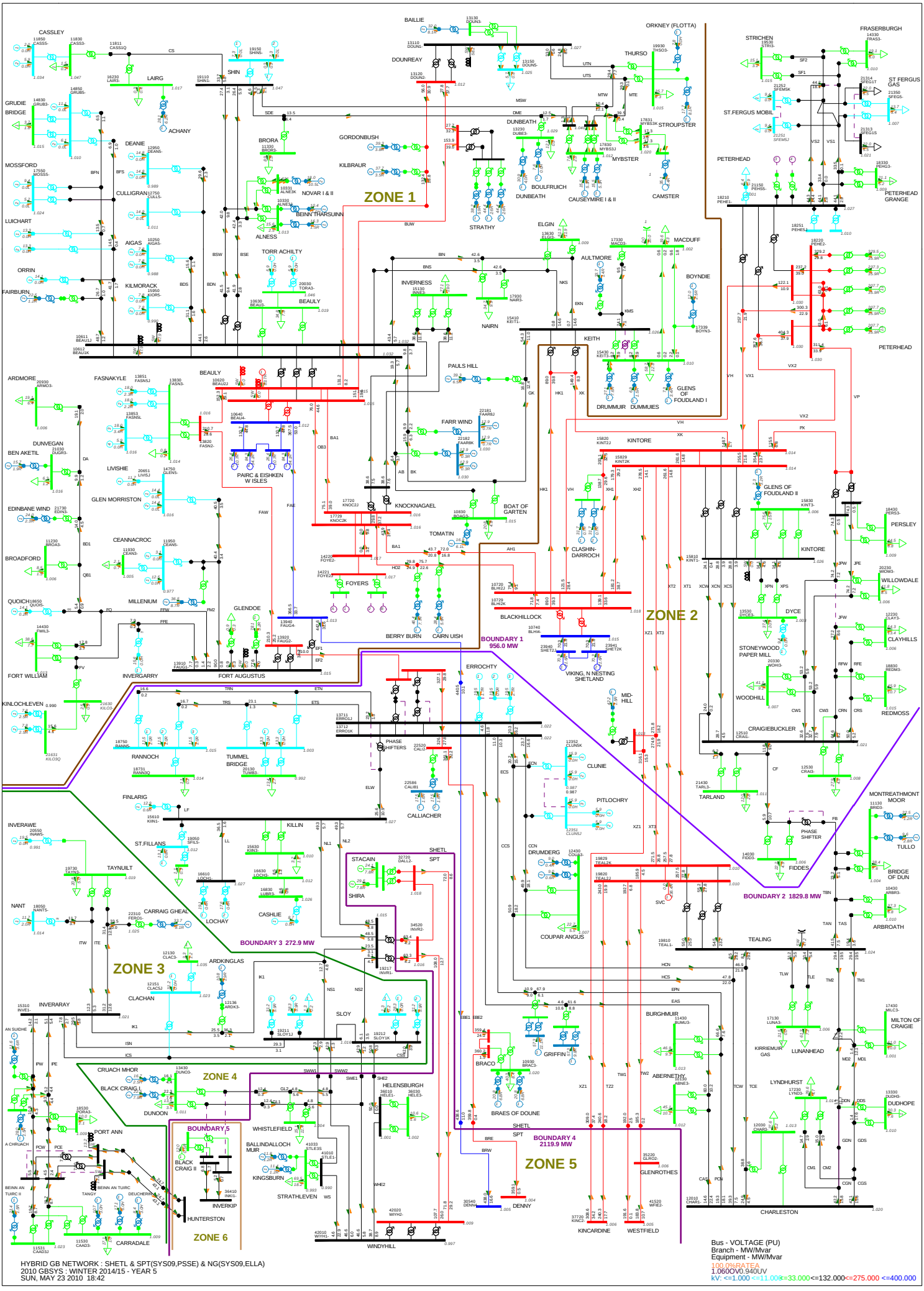
HYBRID GB NETWORK : SHETL & SPT (PSSE) WITH NG (ELLA)
2010 GBSYS : WINTER 2012/13 - YEAR 3
SUN, MAY 23 2010 18:39

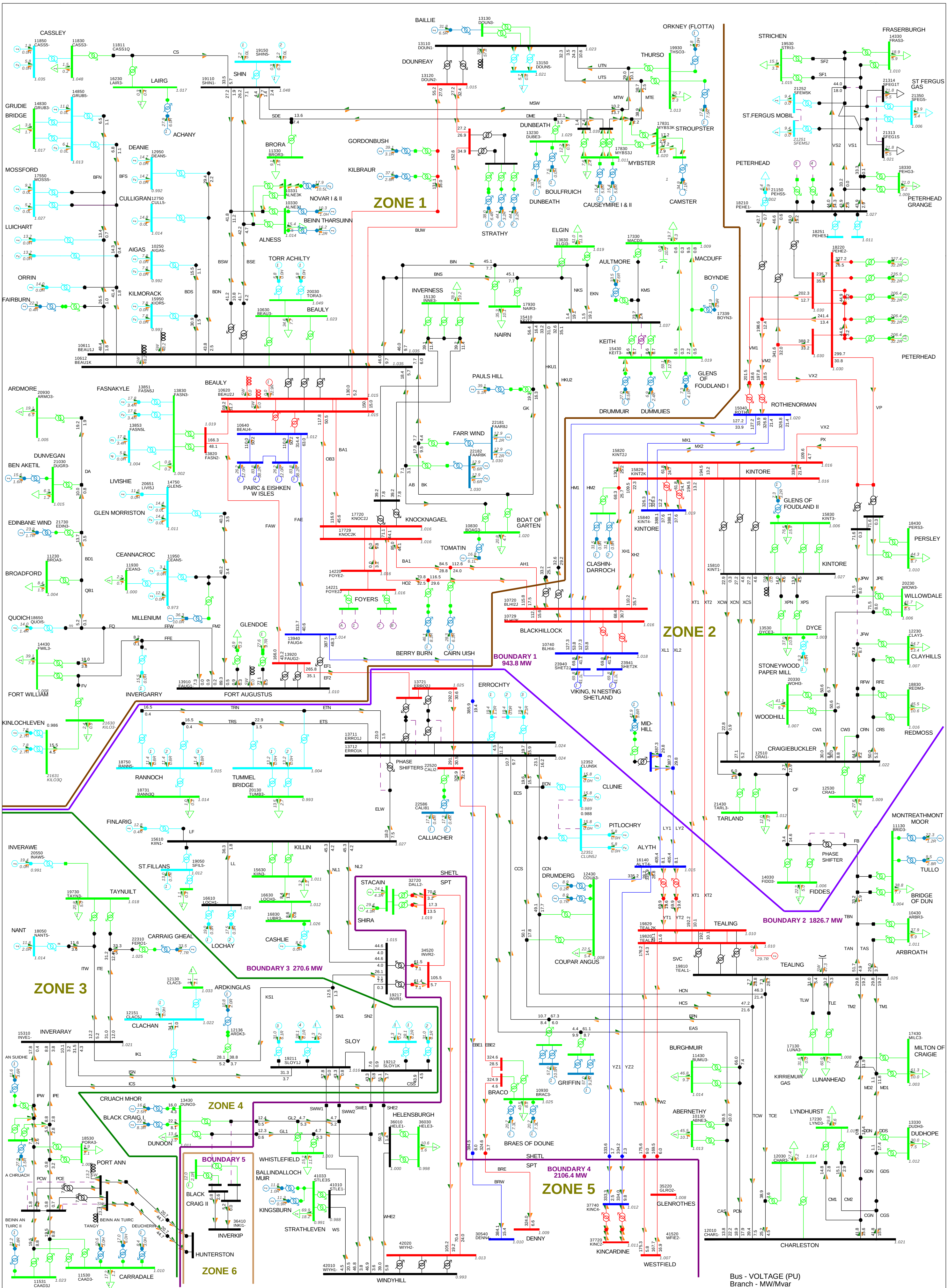
Bus - VOLTAGE (PU)
Branch - MW/Mvar
Equipment - MW/Mvar
100.0MVABTEA
1.060OV0.940UV
kV: <=1.000 <=11.000<=33.000 <=132.000<=275.000



HYBRID GB NETWORK : SHETL & SPT(SYS09,PSSE) & NG(SYS09,ELLA)
2010 GBSYS : WINTER 2013/14 - YEAR 4
SUN, MAY 23 2010 18:40

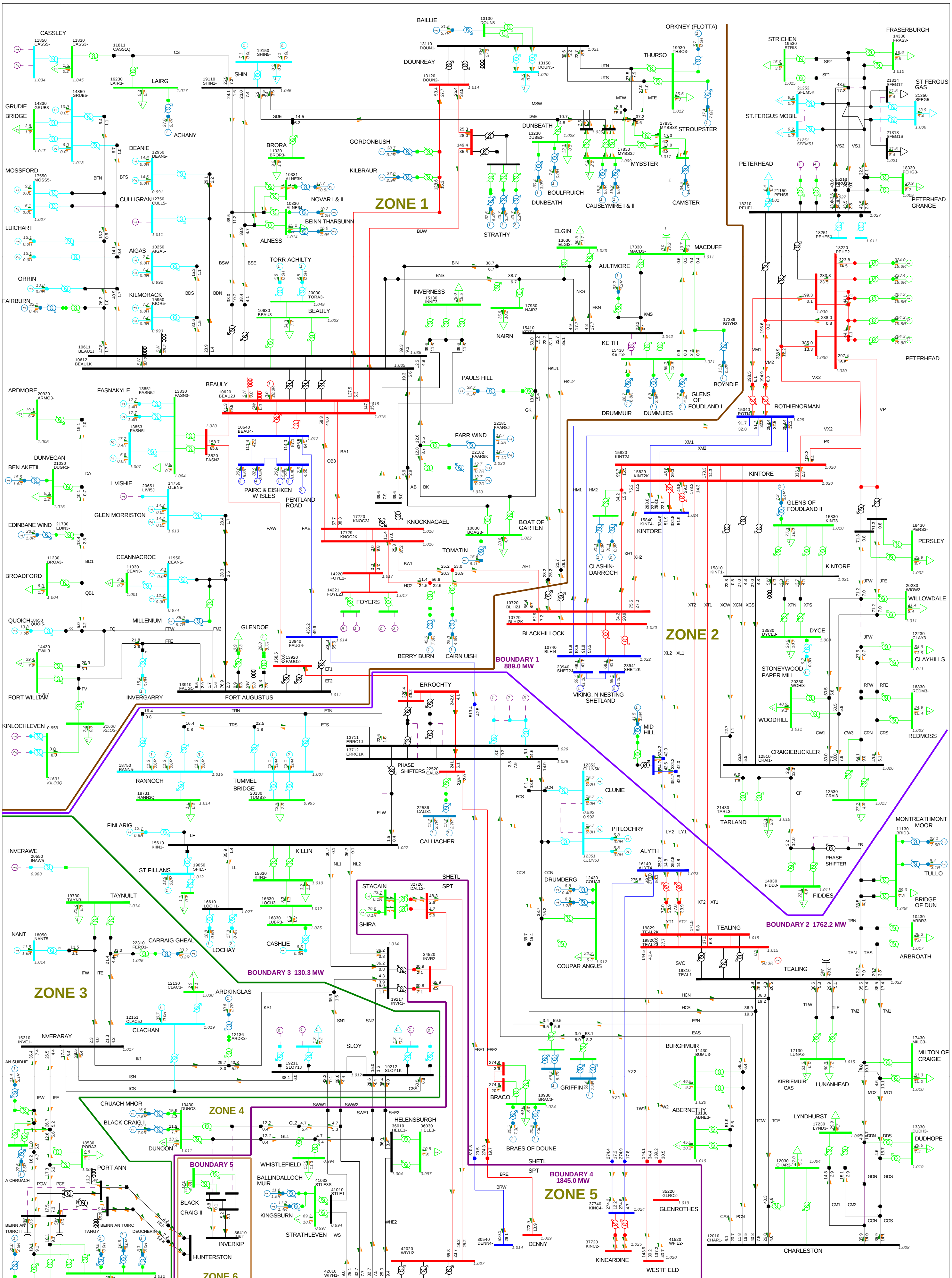
Bus - VOLTAGE (PU)
Branch - MW/Mvar
Equipment - MW/Mvar
100.0%RATEA
1.060OV0.940UV
kV: <=1.000 <=11.000&<=33.000<=132.000<=275.000 <=400.000


ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
ZONE 6
BOUNDARY 1
956.0 MW
BOUNDARY 2 1829.8 MW
BOUNDARY 3 272.9 MW
BOUNDARY 4
2119.9 MW
BOUNDARY 5
CASSLEY
GRUDIE BRIDGE
MOSSFORD
LUICHART
FAIRBURN
ORRIN
ACHANY
DEANIE
CULLIGRAN
AIGAS
KILMORACK
LAIRG
SHIN
BRORA
ALNESS
NOVAR I & II
BEINN THARSUINN
TORR ACHILTY
BEAULY
KILBRAUR
GORDONBUSH
STRATHY
BAILLIE
DOUNREAY
THURSO
ORKNEY (FLOTTA)
DUNBEATH
BOULFRUICH
CAUSEYMIRE I & II
STROUPSTER
MYBSTER
CAMSTER
STRICHEN
FRASERBURGH
ST.FERGUS GAS
ST.FERGUS MOBIL
PETERHEAD
PETERHEAD GRANGE
ELGIN
AULTMORE
MACDUFF
BOYNDIE
INVERNESS
NAIRN
KEITH
DRUMMUIR
DUMMUIES
GLENS OF FOUDLAND I
PAULS HILL
FARR WIND
ARDMORE
FASNAKYLE
DUNVEGAN
BEN AKETIL
LIVISHIE
GLEN MORRISTON
EDINBANE WIND
BROADFORD
QUOICH
MILLENIUM
FORT WILLIAM
PAIRC & EISHKEN W ISLES
KNOCKNAGAEL
BOAT OF GARTEN
TOMATIN
FOYERS
BERRY BURN
CAIRN UISH
GLENDOE
FORT AUGUSTUS
INVERGARRY
BLACKHILLOCK
CLASHIN-DARROCH
KINTORE
GLENS OF FOUDLAND II
PERSLEY
WILLOWDALE
DYCE
CLAYHILLS
STONEYWOOD PAPER MILL
WOODHILL
REDMOSS
CRAIGIEBUCKLER
TARLAND
MONTREATHMONT MOOR
TULLO
BRIDGE OF DUN
ARBROATH
FIDDES
TEALING
VIKING, N NESTING
SHETLAND
MID-HILL
ERROCHTY
PHASE SHIFTERS
CLUNIE
PITLOCHRY
CALLIACHER
COUPAR ANGUS
SVC
RANNOCH
TUMMEL BRIDGE
FINLARIG
KILLIN
ST.FILLANS
TAYNUILT
LOCHAY
CARRAIG GHEAL
INVERAWE
NANT
STACAIN
SHIRA
CASHLIE
SLOY
ARDKINGLAS
CLACHAN
INVERARAY
AN SUIDHE
CRUACH MHOR
BLACK CRAIG I
DUNOON
PORT ANN
A CHRUACH
BEINN AN TUIRC II
CARRADALE
BLACK CRAIG II
INVERKIP
HUNTERSTON
WHISTLEFIELD
BALLINDALLOCH MUIR
KINGSBURN
STRATHLEVEN
HELENSBURGH
BRACO
GRIFFIN
BRAES OF DOUNE
ABERNETHY
BURGHMUIR
LUNANHEAD
KIRRIEMUIR GAS
MILTON OF CRAIGIE
LYNDHURST
DUDHOPE
GLENROTHES
DENNY
KINCARDINE
WESTFIELD
CHARLESTON
WINDYHILL
HYBRID GB NETWORK : SHETL & SPT(SYS09,PSSE) & NG(SYS09,ELLA)
2010 GBSYS : WINTER 2014/15 - YEAR 5
SUN, MAY 23 2010 18:42
Bus - VOLTAGE (PU)
Branch - MW/Mvar
Equipment - MW/Mvar
100.0%RATEA
1.060OV0.940UV
kV: <=1.000 <=11.000&<=33.000<=132.000<=275.000 <=400.000


ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
ZONE 6
BOUNDARY 1 943.8 MW
BOUNDARY 2 1826.7 MW
BOUNDARY 3 270.6 MW
BOUNDARY 4 2106.4 MW
BOUNDARY 5
CASSLEY
LAIRG
SHIN
BAILLIE
DOUNREAY
ORKNEY (FLOTTA)
THURSO
STRICHEN
FRASERBURGH
ST FERGUS GAS
ST.FERGUS MOBIL
GRUDIE BRIDGE
ACHANY
DEANIE
BRORA
GORDONBUSH
KILBRAUR
DUNBEATH
STROUPSTER
MYBSTER
BOULFRUICH
CAUSEYMIRE I & II
CAMSTER
STRATHY
PETERHEAD
PETERHEAD GRANGE
MOSSFORD
CULLIGRAN
NOVAR I & II
BEINN THARSUINN
ALNESS
LUICHART
AIGAS
TORR ACHILTY
ORRIN
FAIRBURN
KILMORACK
BEAULY
INVERNESS
NAIRN
ELGIN
AULTMORE
MACDUFF
BOYNDIE
KEITH
GLENS OF FOUDLAND I
DRUMMUIR
DUMMUIES
ROTHIENORMAN
ARDMORE
FASNAKYLE
PAULS HILL
FARR WIND
DUNVEGAN
BEN AKETIL
LIVISHIE
PAIRC & EISHKEN W ISLES
GLEN MORRISTON
KNOCKNAGAEL
BOAT OF GARTEN
EDINBANE WIND
TOMATIN
CEANNACROC
BROADFORD
FOYERS
CLASHIN-DARROCH
KINTORE
GLENS OF FOUDLAND II
PERSLEY
QUOICH
MILLENNIUM
GLENDOE
BLACKHILLOCK
WILLOWDALE
DYCE
FORT WILLIAM
INVERGARRY
FORT AUGUSTUS
BERRY BURN
CAIRN UISH
VIKING, N NESTING SHETLAND
STONEYWOOD PAPER MILL
CLAYHILLS
KINLOCHLEVEN
ERROCHTY
WOODHILL
REDMOSS
MID-HILL
CRAIGIEBUCKLER
RANNOCH
TUMMEL BRIDGE
PHASE SHIFTERS
CLUNIE
TARLAND
CALLIACHER
PITLOCHRY
MONTREATHMONT MOOR
FINLARIG
KILLIN
INVERAWE
ST.FILLANS
ALYTH
TULLO
TAYNUILT
LOCHAY
STACAIN
SHIRA
DRUMDERG
FIDDES
BRIDGE OF DUN
NANT
CARRAIG GHEAL
CASHLIE
COUPAR ANGUS
TEALING
ARBROATH
ARDKINGLAS
CLACHAN
SLOY
INVERARAY
BURGHMUIR
LUNANHEAD
KIRRIEMUIR GAS
MILTON OF CRAIGIE
BRACO
GRIFFIN
CRUACH MHOR
BLACK CRAIG I
DUNOON
PORT ANN
A CHRUACH
HELENSBURGH
ABERNETHY
LYNDHURST
DUDHOPE
BRAES OF DOUNE
WHISTLEFIELD
BALLINDALLOCH MUIR
BLACK CRAIG II
KINGSBURN
STRATHLEVEN
INVERKIP
HUNTERSTON
BEINN AN TUIRC
CARRADALE
DENNY
KINCARDINE
GLENROTHES
WESTFIELD
CHARLESTON
WINDYHILL

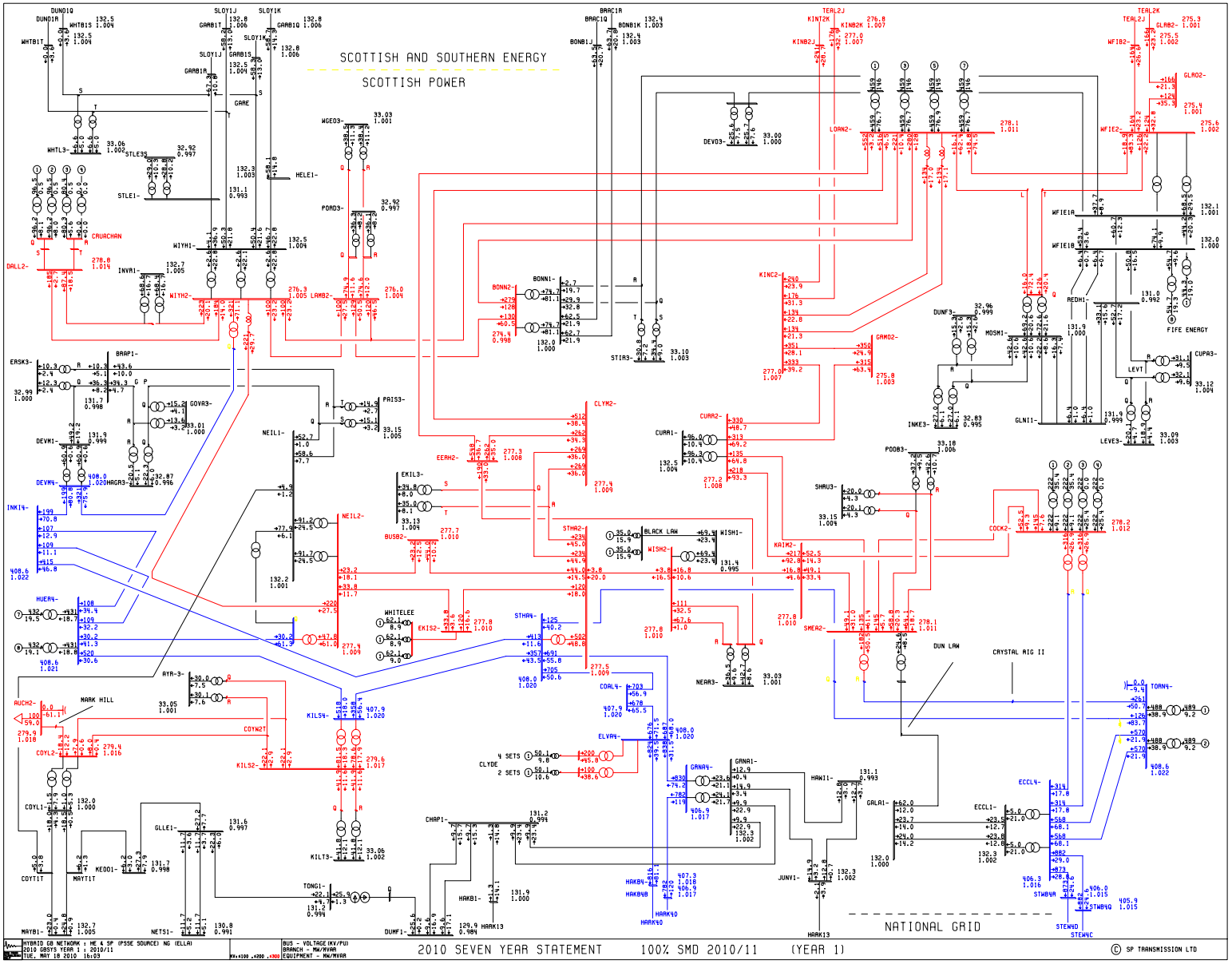
HYBRID GB NETWORK : SHETL & SPT(SYS09,PSSE) & NG(SYS09,ELLA)
2010 GBSYS : WINTER 2015/16 - YEAR 6
SUN, MAY 23 2010 18:44

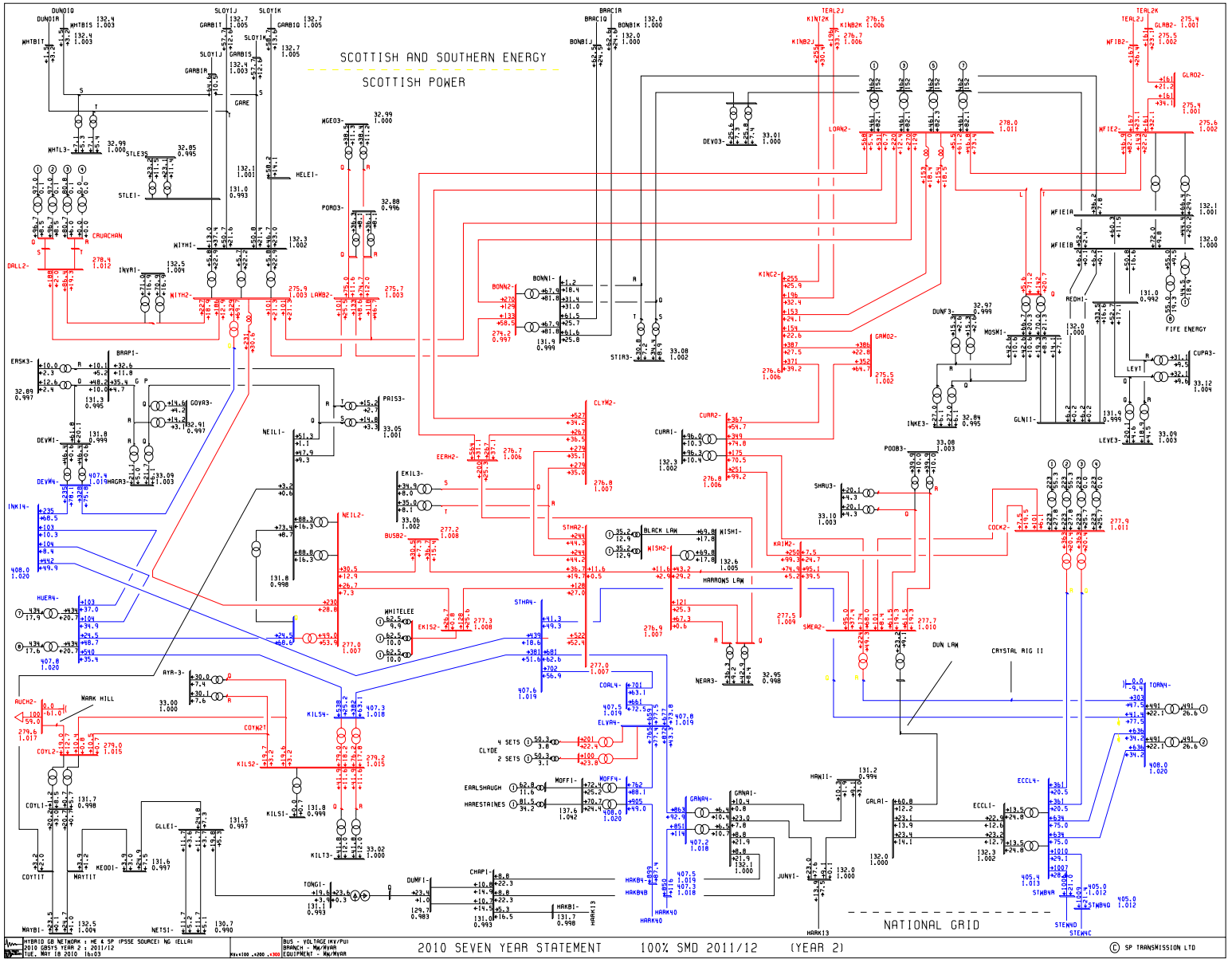
Bus - VOLTAGE (PU)
Branch - MW/Mvar
Equipment - MW/Mvar
100.0%RATEA
1.060OV0.940UV
kV: <=1.000 <=11.000 <=33.000 <=132.000 <=275.000 <=400.000

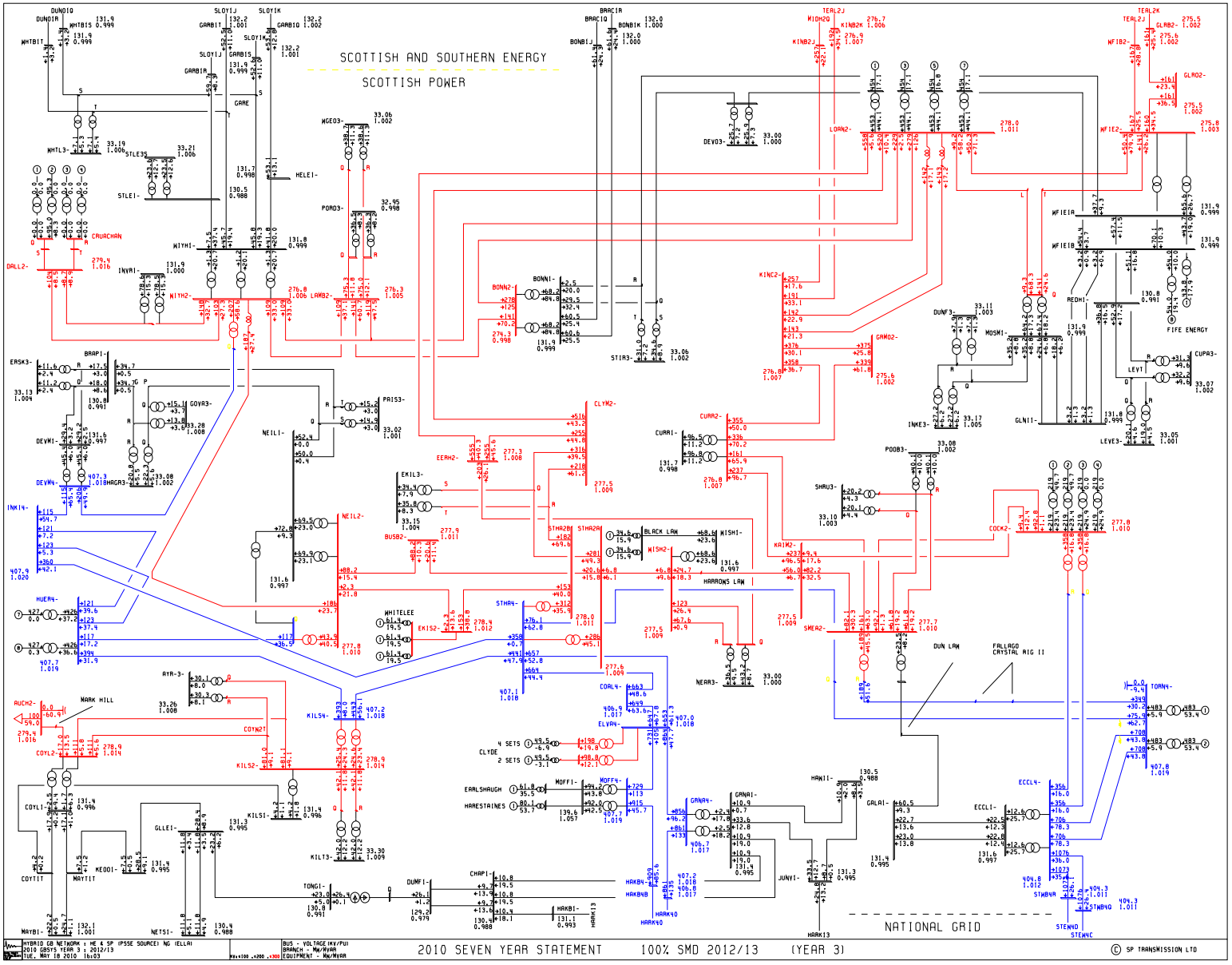

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
ZONE 6
BOUNDARY 1
889.0 MW
BOUNDARY 2 1762.2 MW
BOUNDARY 3 130.3 MW
BOUNDARY 4
1845.0 MW
BOUNDARY 5
CASSLEY
LAIRG
SHIN
BAILLIE
DOUNREAY
ORKNEY (FLOTTA)
THURSO
STRICHEN
FRASERBURGH
ST FERGUS GAS
ST.FERGUS MOBIL
GRUDIE BRIDGE
ACHANY
DEANIE
MOSSFORD
CULLIGRAN
LUICHART
AIGAS
ORRIN
FAIRBURN
KILMORACK
BRORA
GORDONBUSH
KILBRAUR
NOVAR I & II
BEINN THARSUINN
ALNESS
TORR ACHILTY
BEAULY
INVERNESS
DUNBEATH
STROUPSTER
MYBSTER
BOULFRUICH
CAUSEYMIRE I & II
CAMSTER
STRATHY
ELGIN
MACDUFF
AULTMORE
NAIRN
KEITH
BOYNDIE
GLENS OF FOULDAND I
DRUMMUIR
DUMMUIES
PETERHEAD
PETERHEAD GRANGE
ROTHIENORMAN
KINTORE
GLENS OF FOULDAND II
PERSLEY
WILLOWDALE
DYCE
CLAYHILLS
STONEYWOOD PAPER MILL
WOODHILL
REDMOSS
CRAIGIEBUCKLER
TARLAND
MONTREATHMONT MOOR
TULLO
FIDDES
BRIDGE OF DUN
ARBROATH
TEALING
BURGHMUIR
LUNANHEAD
MILTON OF CRAIGIE
KIRRIEMUIR GAS
ABERNETHY
LYNDHURST
DUDHOPE
CHARLESTON
ARDMORE
FASNAKYLE
DUNVEGAN
BEN AKETIL
LIVISHIE
GLEN MORRISTON
EDINBANE WIND
CEANNACROC
BROADFORD
QUOICH
MILLENIUM
GLENDOE
FORT WILLIAM
INVERGARRY
FORT AUGUSTUS
KINLOCHLEVEN
PAULS HILL
FARR WIND
PAIRC & EISHKEN W ISLES
PENTLAND ROAD
KNOCKNAGAEL
BOAT OF GARTEN
TOMATIN
FOYERS
BERRY BURN
CAIRN UISH
BLACKHILLOCK
CLASHIN-DARROCH
VIKING, N NESTING SHETLAND
MID-HILL
ERROCHTY
PHASE SHIFTERS
CLUNIE
PITLOCHRY
CALLIACHER
RANNOCH
TUMMEL BRIDGE
FINLARIG
INVERAWE
KILLIN
ST.FILLANS
TAYNUILT
LOCHAY
CASHLIE
NANT
CARRAIG GHEAL
ARDKINGLAS
CLACHAN
INVERARAY
SLOY
ALYTH
DRUMDERG
COUPAR ANGUS
STACAIN
SHIRA
CRUACH MHOR
BLACK CRAIG I
DUNOON
HELENSBURGH
PORT ANN
A CHRUACH
BEINN AN TUIRC
DEUCHERIE
CARRADALE
BLACK CRAIG II
INVERKIP
HUNTERSTON
WHISTLEFIELD
BALLINDALLOCH MUIR
KINGSBURN
STRATHLEVEN
WINDYHILL
BRACO
GRIFFIN
BRAES OF DOUNE
DENNY
KINCARDINE
GLENROTHES
WESTFIELD

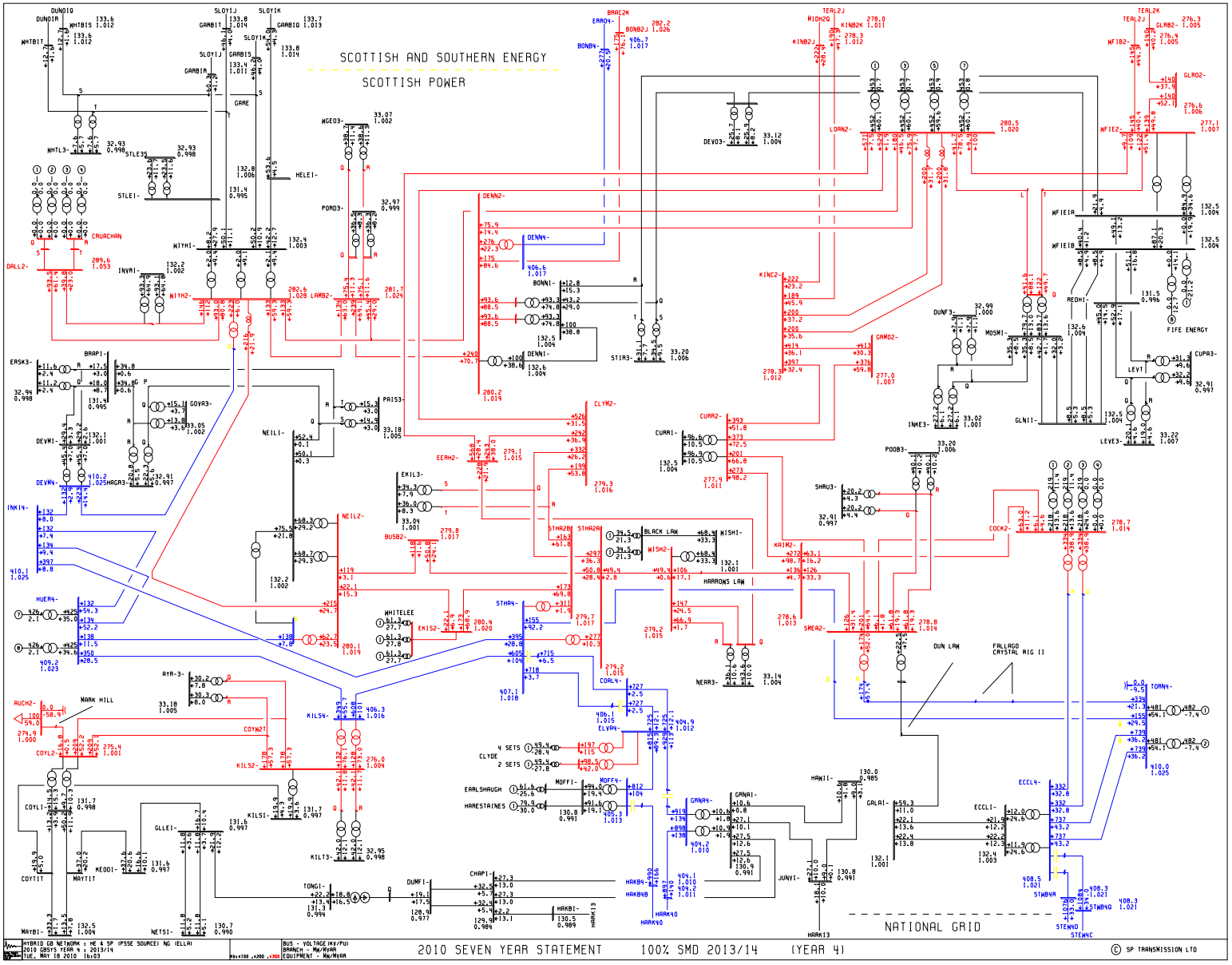
HYBRID GB NETWORK : SHETL & SPT(SYS09,PSSE) & NG(SYS09,ELLA)
2010 GBSYS : WINTER 2016/17 - YEAR 7
SUN, MAY 23 2010 18:45

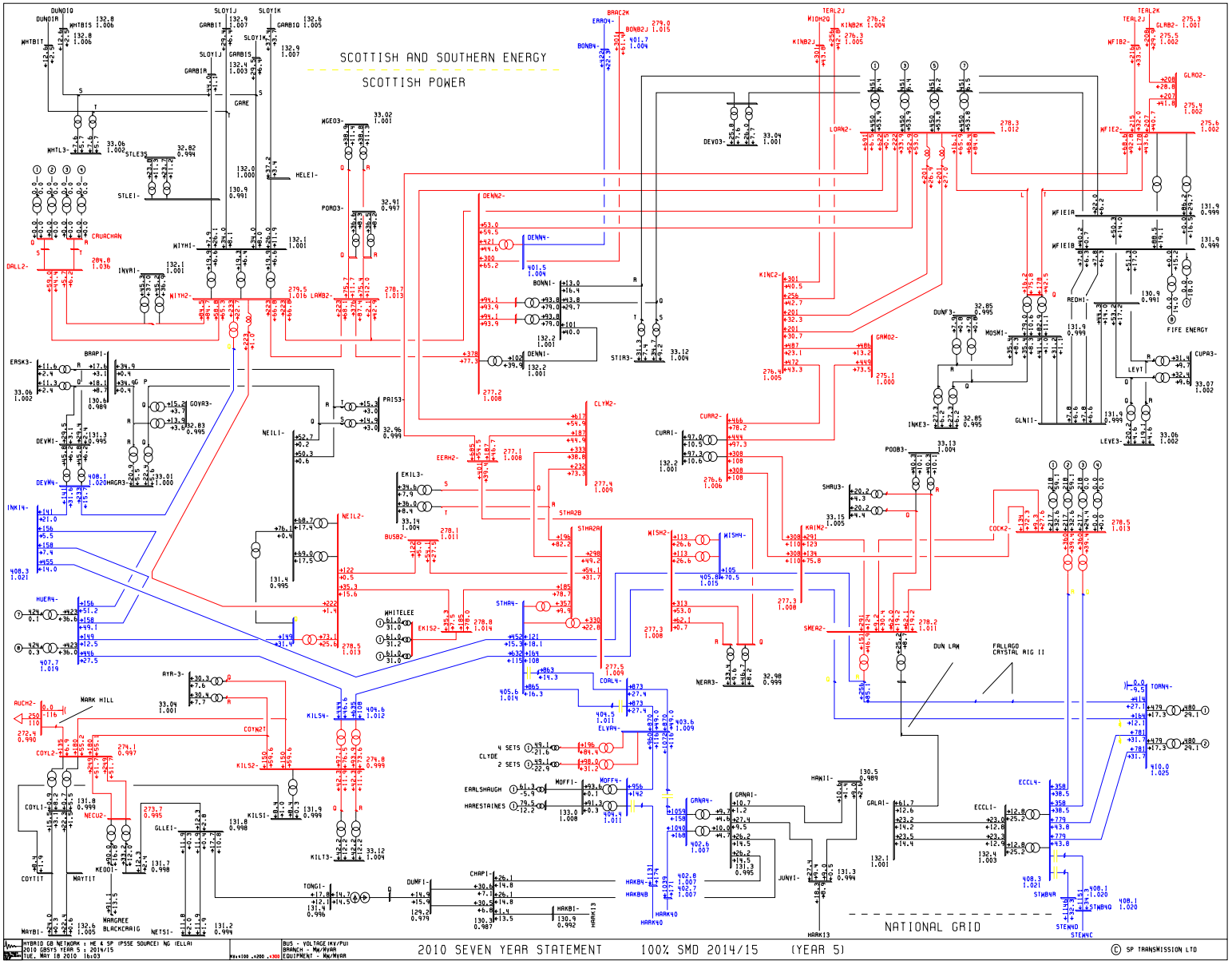
Bus - VOLTAGE (PU)
Branch - MW/Mvar
Equipment - MW/Mvar
100.0%RATEA
1.060OV0.940UV
kV: <=1.000 <=11.000 <=33.000 <=132.000 <=275.000 <=400.000

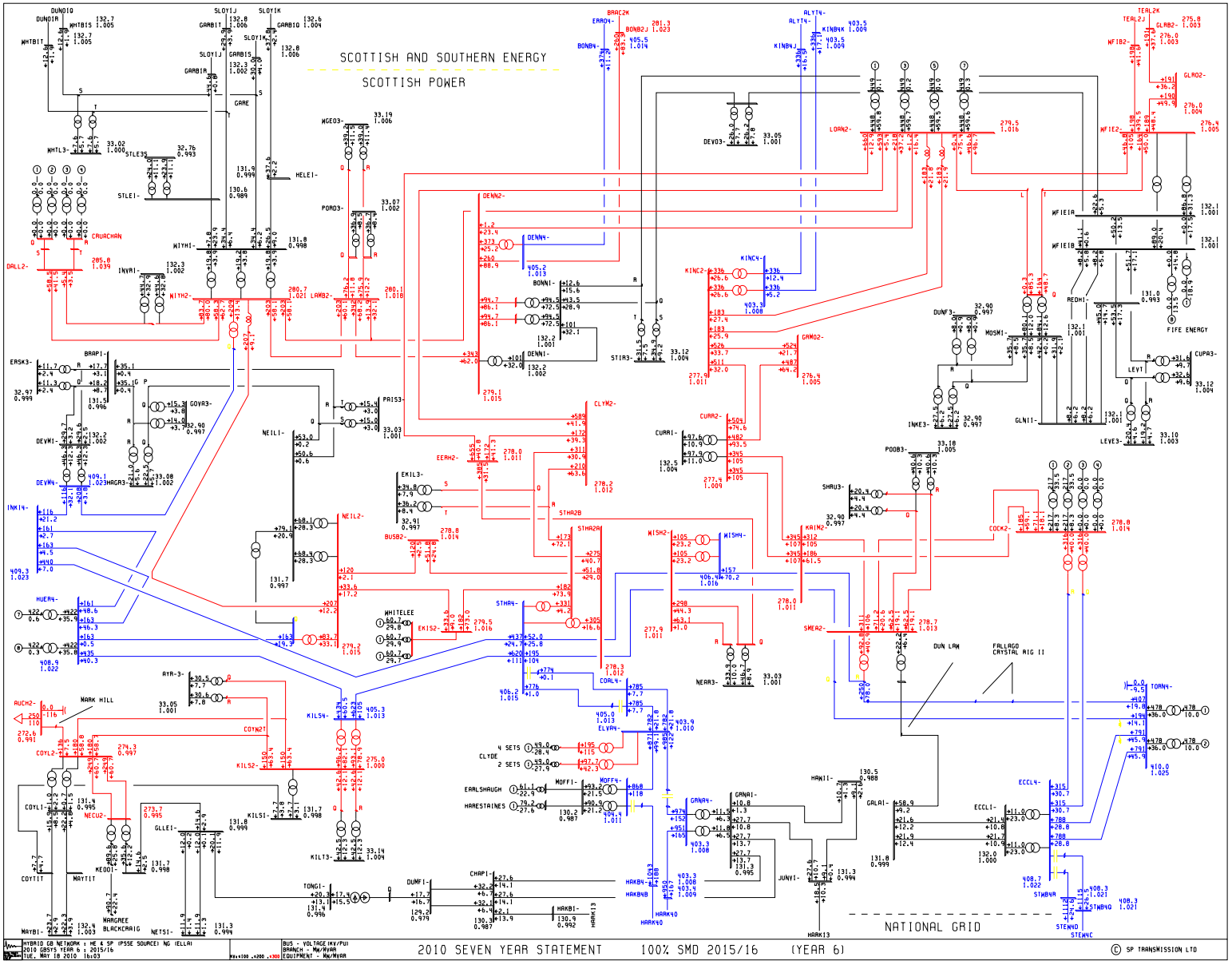

SCOTTISH AND SOUTHERN ENERGY
SCOTTISH POWER
NATIONAL GRID
HYBRID GB NETWORK : HE & SP (PSSE SOURCE) NG (ELLA)
2010 GBSYS YEAR 1 : 2010/11
TUE, MAY 18 2010 16:03
BUS - VOLTAGE(KV/PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
2010 SEVEN YEAR STATEMENT
100% SMD 2010/11
(YEAR 1)
© SP TRANSMISSION LTD

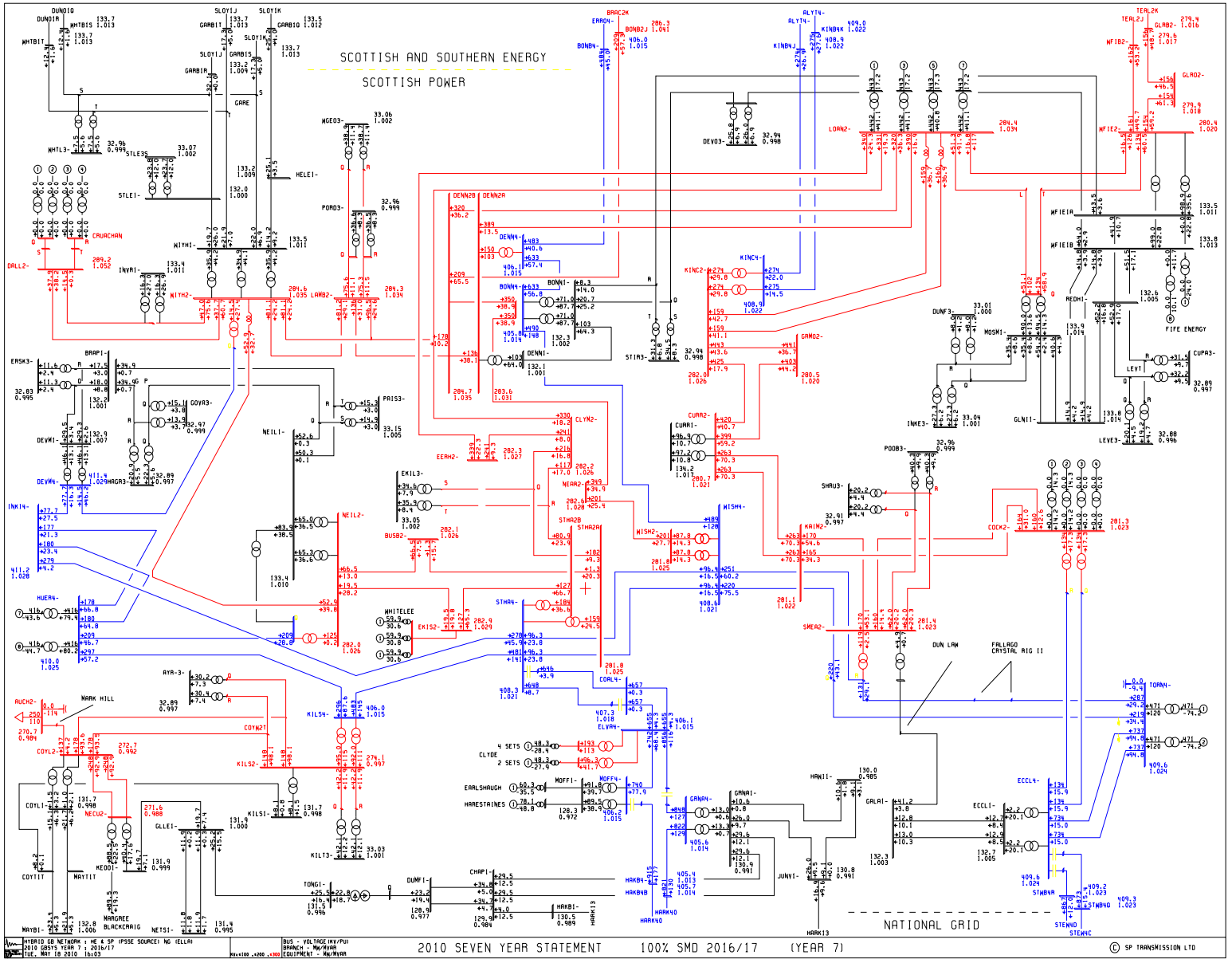

SCOTTISH AND SOUTHERN ENERGY
SCOTTISH POWER
NATIONAL GRID
HYBRID GB NETWORK + HE & SP (PSSE SOURCE) NG (ELLA)
2010 GBSYS YEAR 2 : 2011/12
TUE, MAY 18 2010 16:03
BUS - VOLTAGE (KV/PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
2010 SEVEN YEAR STATEMENT
100% SMD 2011/12
(YEAR 2)
© SP TRANSMISSION LTD


SCOTTISH AND SOUTHERN ENERGY
SCOTTISH POWER
NATIONAL GRID
DUN LAW
FALLAGO
CRYSTAL RIG II
WARK HILL
HARRAWS LAW
BLACK LAW
WHITELEE
CLYDE
EARLSHAUGH
HARESTANES
FIFE ENERGY
HYBRID GB NETWORK : HE & SP (PSSE SOURCE: NG (ELLA)
2010 GBSYS YEAR 3 : 2012/13
TUE, MAY 18 2010 16:03
BUS - VOLTAGE (KV/PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
2010 SEVEN YEAR STATEMENT
100% SMD 2012/13
(YEAR 3)
© SP TRANSMISSION LTD

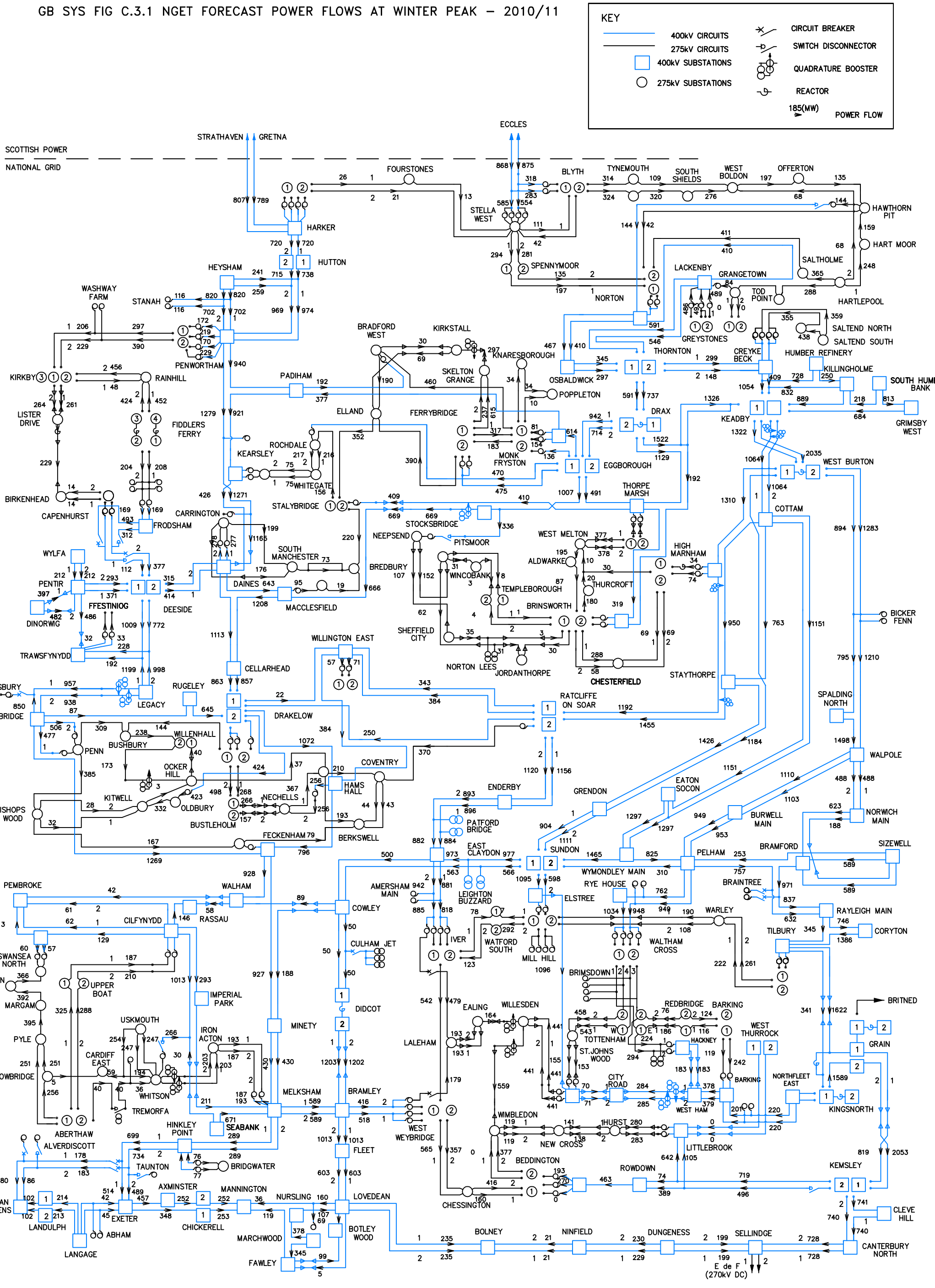

SCOTTISH AND SOUTHERN ENERGY
SCOTTISH POWER
NATIONAL GRID
DUN LAW
FALLAGO
CRYSTAL RIG II
WARK HILL
HARRANS LAW
BLACK LAW
WHITELEE
FIFE ENERGY
HYBRID GB NETWORK : HE & SP (PSSE SOURCE: NG (ELLA)
2010 GBSYS YEAR N : 2013/14
TUE, MAY 18 2010 16:03
BUS - VOLTAGE (KV/PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
2010 SEVEN YEAR STATEMENT
100% SMD 2013/14
(YEAR 4)
© SP TRANSMISSION LTD


SCOTTISH AND SOUTHERN ENERGY
SCOTTISH POWER
NATIONAL GRID
DUN LAW
FALLAGO
CRYSTAL RIG II
FIFE ENERGY
WARK HILL
BLACKCRAIG
HYBRID GB NETWORK : HE & SP (PSSE SOURCE) NG (ELLA)
2010 GBSYS YEAR 5 : 2014/15
TUE, MAY 18 2010 16:03
BUS - VOLTAGE (KV/PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
2010 SEVEN YEAR STATEMENT
100% SMD 2014/15
(YEAR 5)
© SP TRANSMISSION LTD

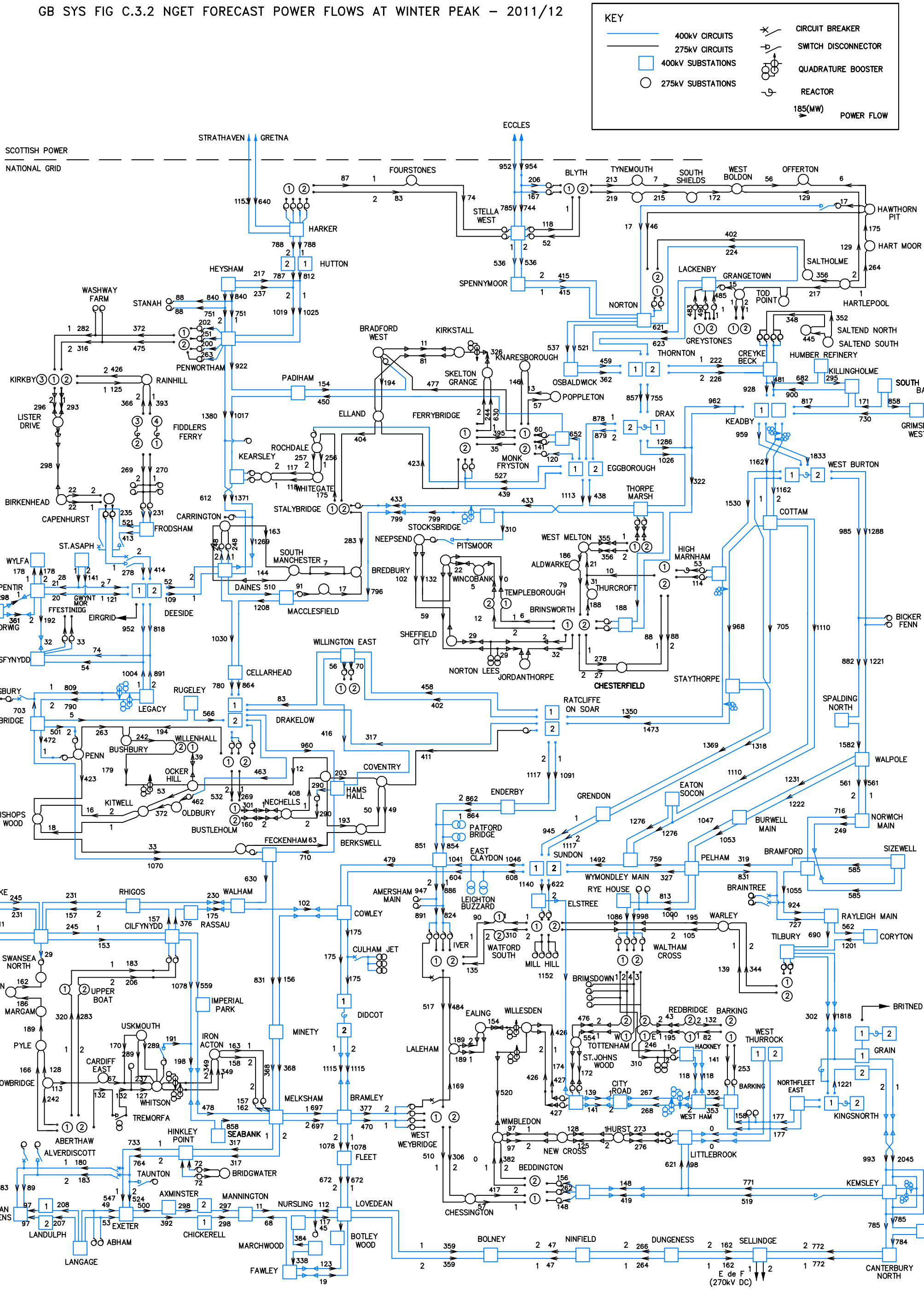

SCOTTISH AND SOUTHERN ENERGY
SCOTTISH POWER
NATIONAL GRID
DUN LAW
FALLAGO
CRYSTAL RIG II
FIFE ENERGY
HYBRID GB NETWORK : HE & SP (PSSE SOURCE: NG IELLA)
2010 GBSYS YEAR 6 : 2015/16
TUE, MAY 18 2010 16:03
BUS - VOLTAGE (KV/PU)
BRANCH - MW/MVAR
EQUIPMENT - MW/MVAR
2010 SEVEN YEAR STATEMENT
100% SMD 2015/16
(YEAR 6)
© SP TRANSMISSION LTD


SCOTTISH AND SOUTHERN ENERGY
SCOTTISH POWER
NATIONAL GRID
DUN LAW
FALLAGO
CRYSTAL RIG II
WARK HILL
2010 SEVEN YEAR STATEMENT
100% SMD 2016/17
(YEAR 7)
© SP TRANSMISSION LTD

GB SYS FIG C.3.1 NGET FORECAST POWER FLOWS AT WINTER PEAK – 2010/11



GB SYS FIG C.3.2 NGET FORECAST POWER FLOWS AT WINTER PEAK – 2011/12



41/177151 ISSUE F 21-04-10

GB SYS FIG C.3.3 NGET FORECAST POWER FLOWS AT WINTER PEAK – 2012/13

KEY

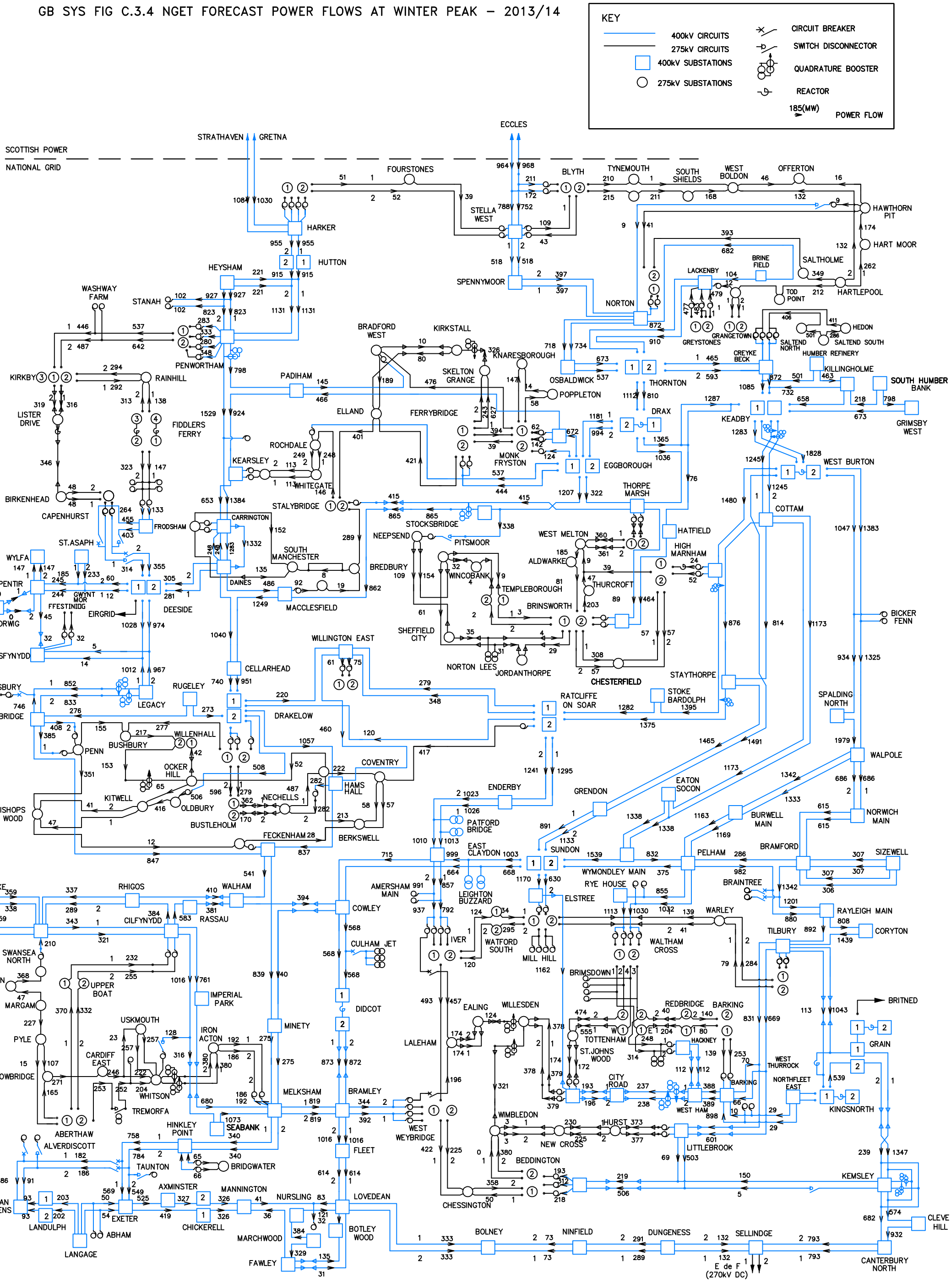
400kV CIRCUITS
275kV CIRCUITS
400kV SUBSTATIONS
275kV SUBSTATIONS
CIRCUIT BREAKER
SWITCH DISCONNECTOR
QUADRATURE BOOSTER
REACTOR
185(MW) POWER FLOW

SCOTTISH POWER
NATIONAL GRID

STRATHAVEN
GRETNA
ECCLES
FOURSTONES
BLYTH
TYNEMOUTH
SOUTH SHIELDS
WEST BOLDON
OFFERTON
HAWTHORN PIT
HART MOOR
HARKER
STELLA WEST
HUTTON
HEYSHAM
SPENNYMOOR
SALTHOLME
BRINE FIELD
LACKENBY
TOD POINT
HARTLEPOOL
WASHWAY FARM
STANAH
NORTON
GREYSTONES
GRANGETOWN
SALTEND NORTH
SALTEND SOUTH
PENWORTHAM
BRADFORD WEST
KIRKSTALL
KNARESBOROUGH
CREYKE BECK
HUMBER REFINERY
KILLINGHOLME
SOUTH HUMBER BANK
GRIMSBY WEST
KIRKBY
RAINHILL
SKELTON GRANGE
OSBALDWICK
THORNTON
DRAX
KEADBY
LISTER DRIVE
FIDDLERS FERRY
PADIHAM
ELLAND
FERRYBRIDGE
POPPLETON
ROCHDALE
KEARSLEY
WHITEGATE
MONK FRYSTON
EGGBOROUGH
WEST BURTON
BIRKENHEAD
CAPENHURST
FRODSHAM
STALYBRIDGE
STOCKSBRIDGE
THORPE MARSH
COTTAM
CARRINGTON
NEEPSEND
PITSMOOR
WEST MELTON
HIGH MARNHAM
ST.ASAPH
SOUTH MANCHESTER
BREDBURY
ALDWARKE
WYLFA
PENTIR
DAINES
WINCOBANK
TEMPLEBOROUGH
THURCROFT
BRINSWORTH
BICKER FENN
GWYNT MOR
FFESTINIOG
EIRGRID
DEESIDE
MACCLESFIELD
SHEFFIELD CITY
DINORWIG
TRAWSFYNYDD
WILLINGTON EAST
NORTON LEES
JORDANTHORPE
CHESTERFIELD
STAYTHORPE
CELLARHEAD
SHREWSBURY
RUGELEY
LEGACY
DRAKELOW
RATCLIFFE ON SOAR
SPALDING NORTH
IRONBRIDGE
WILLENHALL
BUSHBURY
PENN
COVENTRY
WALPOLE
OCKER HILL
HAMS HALL
ENDERBY
GRENDON
EATON SOCON
NORWICH MAIN
KITWELL
OLDBURY
NECHELLS
BISHOPS WOOD
BUSTLEHOLM
BERKSWELL
PATFORD BRIDGE
EAST CLAYDON
SUNDON
BURWELL MAIN
FECKENHAM
AMERSHAM MAIN
LEIGHTON BUZZARD
ELSTREE
PELHAM
BRAMFORD
SIZEWELL
PEMBROKE
RHIGOS
WALHAM
CILFYNYDD
RASSAU
COWLEY
IVER
WATFORD SOUTH
MILL HILL
WALTHAM CROSS
WARLEY
RYE HOUSE
WYMONDLEY MAIN
BRAINTREE
RAYLEIGH MAIN
TILBURY
CORYTON
SWANSEA NORTH
BAGLAN BAY
UPPER BOAT
IMPERIAL PARK
CULHAM JET
DIDCOT
MARGAM
USKMOUTH
IRON ACTON
MINETY
EALING
WILLESDEN
REDBRIDGE
BARKING
HACKNEY
TOTTENHAM
ST.JOHNS WOOD
CITY ROAD
WEST HAM
BRITNED
GRAIN
PYLE
CARDIFF EAST
COWBRIDGE
WHITSON
TREMORFA
MELKSHAM
BRAMLEY
WEST THURROCK
NORTHFLEET EAST
KINGSNORTH
ABERTHAW
SEABANK
HINKLEY POINT
WEST WEYBRIDGE
WIMBLEDON
HURST
NEW CROSS
LITTLEBROOK
ALVERDISCOTT
TAUNTON
BRIDGWATER
FLEET
BEDDINGTON
KEMSLEY
INDIAN QUEENS
AXMINSTER
MANNINGTON
NURSLING
LOVEDEAN
CHESSINGTON
LANDULPH
EXETER
CHICKERELL
ABHAM
MARCHWOOD
BOTLEY WOOD
BOLNEY
NINFIELD
DUNGENESS
SELLINDGE
CLEVE HILL
LANGAGE
FAWLEY
E de F (270kV DC)
CANTERBURY NORTH

41/177152 ISSUE F 26-04-10

GB SYS FIG C.3.4 NGET FORECAST POWER FLOWS AT WINTER PEAK – 2013/14



41/177292 ISSUE F 27-04-10

GB SYS FIG C.3.5 NGET FORECAST POWER FLOWS AT WINTER PEAK – 2014/15

KEY

400kV CIRCUITS
275kV CIRCUITS
400kV SUBSTATIONS
275kV SUBSTATIONS
CIRCUIT BREAKER
SWITCH DISCONNECTOR
QUADRATURE BOOSTER
REACTOR
185(MW) POWER FLOW

SCOTTISH POWER
NATIONAL GRID

STRATHAVEN
GRETNA
FOURSTONES
ECCLES
BLYTH
TYNEMOUTH
SOUTH SHIELDS
WEST BOLDON
OFFERTON
HAWTHORN PIT
HART MOOR
HARKER
HUTTON
STELLA WEST
SPENNYMOOR
SALTHOLME
BRINE FIELD
LACKENBY
TOD POINT
HARTLEPOOL
NORTON
GREYSTONES
GRANGETOWN
SALTEND NORTH
HEDON
SALTEND SOUTH
HUMBER REFINERY
CREYKE BECK
KILLINGHOLME
SOUTH HUMBER BANK
GRIMSBY WEST
KEADBY
DRAX
THORNTON
OSBALDWICK
POPPLETON
KNARESBOROUGH
SKELTON GRANGE
BRADFORD WEST
KIRKSTALL
PADIHAM
ELLAND
FERRYBRIDGE
FIDDLERS FERRY
WASHWAY FARM
STANAH
PENWORTHAM
HEYSHAM
KIRKBY
RAINHILL
LISTER DRIVE
BIRKENHEAD
CAPENHURST
FRODSHAM
CARRINGTON
ROCHDALE
KEARSLEY
WHITEGATE
STALYBRIDGE
MONK FRYSTON
EGGBOROUGH
THORPE MARSH
WEST BURTON
COTTAM
HATFIELD
HIGH MARNHAM
WEST MELTON
ALDWARKE
THURCROFT
NEEPSEND
PITSMOOR
STOCKSBRIDGE
SOUTH MANCHESTER
DAINES
MACCLESFIELD
BREDBURY
WINCOBANK
TEMPLEBOROUGH
BRINSWORTH
SHEFFIELD CITY
NORTON LEES
JORDANTHORPE
CHESTERFIELD
STAYTHORPE
BICKER FENN
WYLFA
PENTIR
GWYNT MOR
FFESTINIOG
DINORWIG
EIRGRID
DEESIDE
ST.ASAPH
TRAWSFYNYDD
SHREWSBURY
IRONBRIDGE
LEGACY
RUGELEY
CELLARHEAD
WILLINGTON EAST
DRAKELOW
RATCLIFFE ON SOAR
STOKE BARDOLPH
SPALDING NORTH
WALPOLE
KINGS LYNN
NORWICH MAIN
PENN
BUSHBURY
WILLENHALL
OCKER HILL
COVENTRY
HAMS HALL
NECHELLS
KITWELL
OLDBURY
BUSTLEHOLM
BISHOPS WOOD
BERKSWELL
FECKENHAM
ENDERBY
PATFORD BRIDGE
EAST CLAYDON
GRENDON
EATON SOCON
SUNDON
BURWELL MAIN
BRAMFORD
PELHAM
WYMONDLEY MAIN
SIZEWELL
AMERSHAM MAIN
LEIGHTON BUZZARD
RYE HOUSE
ELSTREE
BRAINTREE
RAYLEIGH MAIN
CORYTON
WARLEY
WALTHAM CROSS
IVER
WATFORD SOUTH
MILL HILL
TILBURY
BRIMSDOWN
EALING
WILLESDEN
REDBRIDGE
BARKING
TOTTENHAM
ST.JOHNS WOOD
HACKNEY
CITY ROAD
WEST HAM
WEST THURROCK
NORTHFLEET EAST
GRAIN
KINGSNORTH
BRITNED
WIMBLEDON
NEW CROSS
HURST
LITTLEBROOK
KEMSLEY
CLEVE HILL
CANTERBURY NORTH
E de F (270kV DC)
BEDDINGTON
WEST WEYBRIDGE
CHESSINGTON
PEMBROKE
RHIGOS
WALHAM
CILFYNYDD
RASSAU
COWLEY
CULHAM JET
DIDCOT
FLEET
BRAMLEY
MELKSHAM
MINETY
IMPERIAL PARK
SWANSEA NORTH
BAGLAN BAY
MARGAM
PYLE
COWBRIDGE
CARDIFF EAST
USKMOUTH
IRON ACTON
WHITSON
TREMORFA
ABERTHAW
HINKLEY POINT
SEABANK
BRIDGWATER
TAUNTON
ALVERDISCOTT
INDIAN QUEENS
LANDULPH
EXETER
ABHAM
LANGAGE
AXMINSTER
MANNINGTON
NURSLING
CHICKERELL
MARCHWOOD
FAWLEY
BOTLEY WOOD
LOVEDEAN
BOLNEY
NINFIELD
DUNGENESS
SELLINDGE

41/177428 ISSUE D 04-05-10

GB SYS FIG C.3.6 NGET FORECAST POWER FLOWS AT WINTER PEAK – 2015/16

KEY

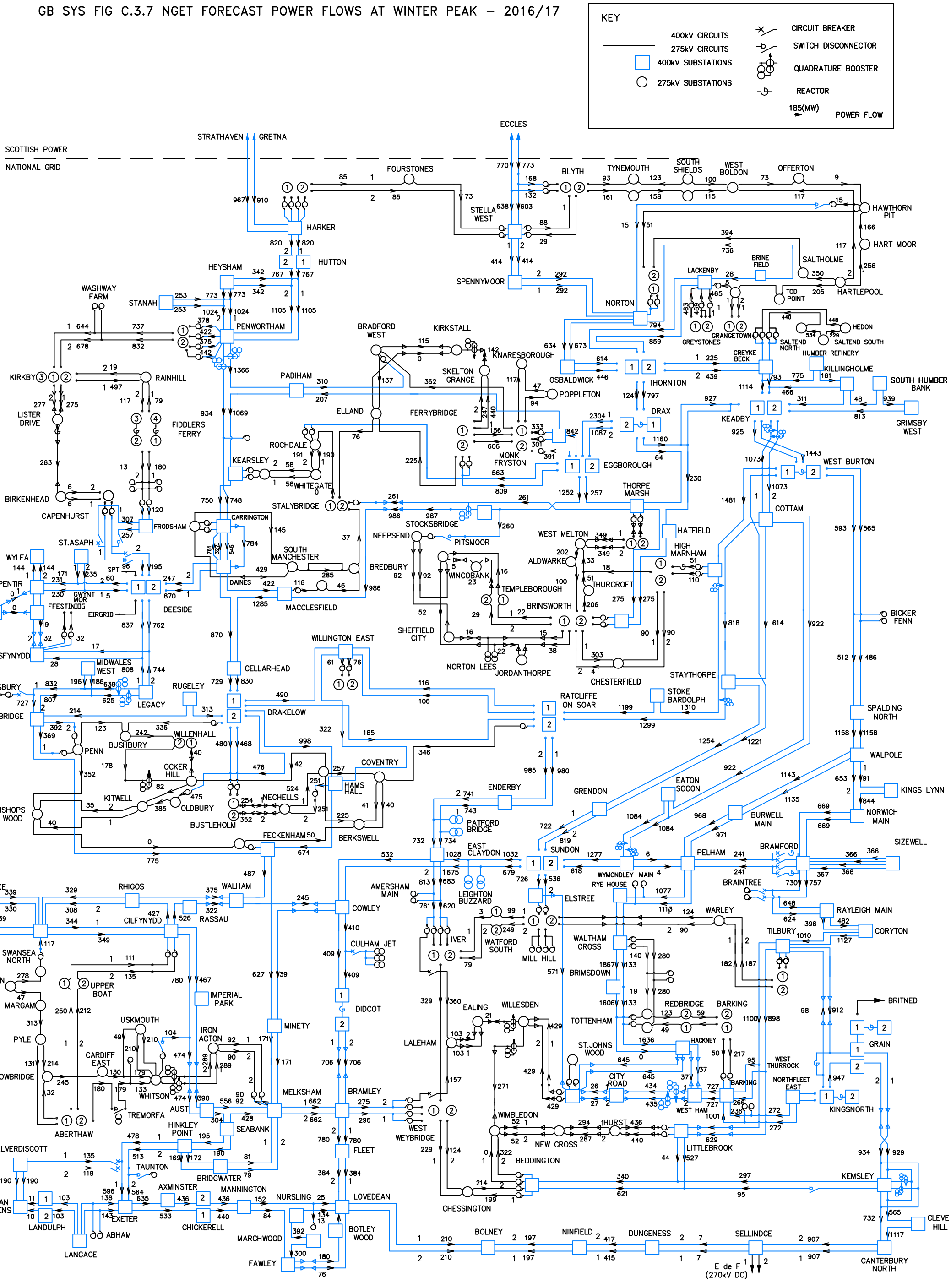
400kV CIRCUITS
275kV CIRCUITS
400kV SUBSTATIONS
275kV SUBSTATIONS
CIRCUIT BREAKER
SWITCH DISCONNECTOR
QUADRATURE BOOSTER
REACTOR
185(MW) POWER FLOW

SCOTTISH POWER
NATIONAL GRID

STRATHAVEN
GRETNA
ECCLES
FOURSTONES
BLYTH
TYNEMOUTH
SOUTH SHIELDS
WEST BOLDON
OFFERTON
HAWTHORN PIT
HART MOOR
HARKER
HUTTON
STELLA WEST
SPENNYMOOR
HEYSHAM
SALTHOLME
BRINE FIELD
LACKENBY
TOD POINT
HARTLEPOOL
WASHWAY FARM
STANAH
PENWORTHAM
NORTON
GREYSTONES
GRANGETOWN
SALTEND NORTH
HEDON
SALTEND SOUTH
BRADFORD WEST
KIRKSTALL
KNARESBOROUGH
OSBALDWICK
POPPLETON
THORNTON
CREYKE BECK
HUMBER REFINERY
KILLINGHOLME
SOUTH HUMBER BANK
GRIMSBY WEST
KIRKBY
RAINHILL
PADIHAM
SKELTON GRANGE
LISTER DRIVE
FIDDLERS FERRY
ELLAND
FERRYBRIDGE
DRAX
KEADBY
WEST BURTON
ROCHDALE
KEARSLEY
WHITEGATE
MONK FRYSTON
EGGBOROUGH
THORPE MARSH
COTTAM
BIRKENHEAD
CAPENHURST
FRODSHAM
CARRINGTON
STALYBRIDGE
STOCKSBRIDGE
NEEPSEND
PITSMOOR
WEST MELTON
HATFIELD
HIGH MARNHAM
ST.ASAPH
SOUTH MANCHESTER
BREDBURY
WINCOBANK
ALDWARKE
THURCROFT
WYLFA
PENTIR
GWYNT MOR
DAINES
MACCLESFIELD
TEMPLEBOROUGH
BRINSWORTH
DINORWIG
FFESTINIOG
EIRGRID
DEESIDE
SHEFFIELD CITY
NORTON LEES
JORDANTHORPE
CHESTERFIELD
STAYTHORPE
BICKER FENN
TRAWSFYNYDD
MIDWALES WEST
CELLARHEAD
WILLINGTON EAST
RATCLIFFE ON SOAR
STOKE BARDOLPH
SHREWSBURY
RUGELEY
DRAKELOW
LEGACY
IRONBRIDGE
WILLENHALL
BUSHBURY
PENN
OCKER HILL
COVENTRY
HAMS HALL
SPALDING NORTH
WALPOLE
KINGS LYNN
NORWICH MAIN
KITWELL
OLDBURY
NECHELLS
BUSTLEHOLM
BERKSWELL
ENDERBY
GRENDON
EATON SOCON
BURWELL MAIN
BISHOPS WOOD
PATFORD BRIDGE
EAST CLAYDON
SUNDON
PELHAM
BRAMFORD
SIZEWELL
PEMBROKE
RHIGOS
WALHAM
CILFYNYDD
RASSAU
COWLEY
AMERSHAM MAIN
LEIGHTON BUZZARD
ELSTREE
WYMONDLEY MAIN
RYE HOUSE
BRAINTREE
RAYLEIGH MAIN
CORYTON
SWANSEA NORTH
BAGLAN BAY
UPPER BOAT
IMPERIAL PARK
CULHAM JET
IVER
WATFORD SOUTH
MILL HILL
WALTHAM CROSS
WARLEY
TILBURY
MARGAM
USKMOUTH
IRON ACTON
MINETY
DIDCOT
PYLE
CARDIFF EAST
WHITSON
TREMORFA
MELKSHAM
BRAMLEY
EALING
WILLESDEN
LALEHAM
BRIMSDOWN
TOTTENHAM
REDBRIDGE
BARKING
HACKNEY
ST.JOHNS WOOD
CITY ROAD
WEST HAM
WEST THURROCK
NORTHFLEET EAST
GRAIN
KINGSNORTH
BRITNED
COWBRIDGE
ABERTHAW
HINKLEY POINT
SEABANK
FLEET
WEST WEYBRIDGE
WIMBLEDON
NEW CROSS
HURST
LITTLEBROOK
BEDDINGTON
CHESSINGTON
KEMSLEY
ALVERDISCOTT
TAUNTON
BRIDGWATER
AXMINSTER
MANNINGTON
NURSLING
LOVEDEAN
INDIAN QUEENS
LANDULPH
EXETER
CHICKERELL
ABHAM
LANGAGE
MARCHWOOD
FAWLEY
BOTLEY WOOD
BOLNEY
NINFIELD
DUNGENESS
SELLINDGE
E de F (270kV DC)
CLEVE HILL
CANTERBURY NORTH

41/177620 ISSUE C 07-05-10

GB SYS FIG C.3.7 NGET FORECAST POWER FLOWS AT WINTER PEAK – 2016/17



41/177681 ISSUE A 10-05-10