DAF \uparrow **Prec** \uparrow **Acc** \uparrow **TPR** \uparrow **TNR** \uparrow **MAE** \downarrow **RMSE** \downarrow **R**² \uparrow

0.922 0.817 0.941 0.045

0.821 0.938

0.896 0.757 0.921 0.052

0.878 0.796 0.893 0.057

0.921 0.828 0.938 0.042 0.083

0.919

0.872

0.87

0.857

0.803

0.75

0.712 0.718 0.693 0.118

0.668 0.535 0.692 0.148

0.687 0.232 0.769 0.124

0.036

0.048

0.868 0.063

0.813 0.075

0.093

0.13

0.138

0.113

0.11

0.085

0.091

0.092

0.094

0.101

0.103

0.118

0.154

0.206

0.233

0.182

0.186

0.167

0.212

0.184

0.044 0.087

0.941 0.864 0.953

Training Set

146K (1.6M) (MPtrj) 31.2M

146K (1.6M) (MPtrj) 3.4M

146K (1.6M) (MPtrj) 25.2M

146K (1.6M) (MPtrj) 1.2M

146K (1.6M) (MPtrj) 842.4K

146K (1.6M) (MPtrj) 15.3M

146K (1.6M) (MPtrj) 4.7M

412.5K

227.5K

167.8K

167.8K

26.2M

128.4K (N=10)

128.4K (N=10)

5.2M (N=10)

4.0M

146K (1.6M) (MPtrj)

63K (188.3K) (MPF)

155K (MP 2022)

133K (MP Graphs)

133K (MP Graphs)

0.788

0.798

0.756

0.776

0.75

0.741

0.697

0.689

0.585

0.297

-0.248

-0.603

-0.018

0.151

-0.329

0

0.019

Model Params Targets Date Added

EFS_D

EFS_G

EFS_D

EFS_G

EFS_G

EFS_G

EFS_G

EFS_GM

EFS_G

Energy

Energy

Energy

Energy

Energy

Energy

Energy

2024-10-18

2025-01-10

2024-10-14

2024-12-10

2024-07-13

2024-11-21

2023-07-14

2023-03-03

2022-09-20

2023-06-02

2022-11-14

2022-12-28

2023-02-03

2022-11-26

2022-11-17

2022-11-26

Model

eqV2 S DeNS

ORB MPtri

DPA3-v1-MPtrj

SevenNet-13i5

GRACE-2L (r6)

SevenNet-0

MACE-MP-0

CHGNet

M3GNet

ALIGNN

MEGNet

CGCNN

BOWSR

Dummy

CGCNN+P

Wrenformer

Voronoi RF

0.815 5.04

0.765 4.65

0.765 4.7

0.724 4.25

0.691 4.16

0.669 3.78

0.613 3.36

0.569 2.88

0.567 3.21

0.507 2.85

0.466 2.26

0.423 1.96

0.333 1.58

0.185 1

2.56

0.5

4.63

0.76

0.711

0.719

0.708

0.65

0.636

0.577

0.514

0.441

0.49

0.452

0.392

0.345

0.241

0.154

0.3

0.92

0.904 0.818

0.851 0.758

0.813 0.803

0.841 0.672

0.826 0.585

0.818 0.605

0.786 0.693

0.745 0.719